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THE
CINCINNATI
MEDICAL NEWS.

EDITED BY

J. A. THACKER, A. M., M. D.

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CINCINNATI, OHIO:

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	100 each.	500 each.		100 each.	500 each.
ACID ARSENIOS, 1-20, 1-30, 1-40, 1-50, 1-60 gr.	40	\$1 75	ANTI-DYSPEPTIC, (3 grs.)	1 00	4 75
ACONITIA, 1-60 gr.	75	3 50	Strychnine, 1-40 gr.		
AGUE	75	3 50	Ext. Belladonna, 1-10 gr.		
Chinoidin, 2 grs. Ext. Col. Co. 1/2 gr.			Pulv. Ipecac, 1-10 gr.		
Ol. Pip Nig 4 gr. Ferri Sulph. 1/2 gr.			Mass. Hydrarg. 2 grs.		
ALORS, U. S. P.	40	1 75	Ext. Coloc. Co. 2 grs.		
Pulv. Aloes Socot., 2 grs.			ANTI-EPILEPTIC, (3 grs.)	6 00	29 75
" Saponis, 2 grs.			Iron Hydrocyanate, 1/2 gr.		
ALOES COMP. U. S. P.	50	2 25	Valerianate Quinine, 1 gr.		
Ext. Gent., 2 1/2 gr., Alo. Socot. 2-3 gr.			Zinc, 1/2 gr.		
Pul. Rhei. 1 1/2 gr. Ol. Carul. 1-5 gr.			Ext. Valerian, 1 gr.		
ALOES ET ASSAF., U. S. P.	40	1 75	ANTI-MALARIAL, (McCaw.)	2 25	11 00
Pulv. Aloes, Socot., 1 1/2 grs.			Quinine Sulph. 1 gr.		
Assafetida, 1 1-3 grs.			Ferri Sul. Exc. 1/2 gr.		
Pulv. Saponis, 1 1-3 grs.			Ol. Res. Pip. Niz. 1-16 gr.		
ALOES, ET MASTICH, (Lady Web- ster's Dinner Pills), 3 grs.	50	2 25	Ac. Arsenious, 1-30 gr.		
Pulv. Aloes Socot., 1 1/2 gr.			Gelsemin. 1/4 gr.		
Gum Mastich, 1/4 gr.			Podophyllin. 1/2 gr.		
Flor Rosae, 1/4 gr.			ANTI-SPASMODIC.	75	3 50
ALOES, ET MYRRH, U. S. P.	50	2 25	Ext. Hyoscyami, 1/2 gr.		
Pulv. Aloes Socot., 2 grs.			Morphia Acetat, 1-10 gr.		
" Myrrhæ, 1 gr.			Brom. Camphor, 1/2 gr.		
Croci Stigmat., 1/4 gr.			Pulv. Capsici, 1/2 gr.		
ALOES, ET NUX VOMICA	50	2 25	ANTI-SPLENETIC.	60	2 75
Pulv. Aloes Socot., 1 1/2 grs.			Pulv. Aloes Soc. 1 gr.		
Ext. Nux Vomica, 1/2 gr.			" Ammoniac, 1/2 gr.		
ALTERATIVE	\$ 50	\$2 25	" Myrrhæ, 1/2 gr.		
Mass. Hydrargyri, 1 gr.			Ext. Bryony, 1 gr.		
Pulv. Opil, 1/2 gr.			ANTHELMINTIC.	1 00	4 75
" Ipecac, 1/2 gr.			Santonin. Calomel, aa. 1 gr		
AYMON. BROMID, 1 gr.	75	3 50	ANTIMONI COMP. U. S. P. (Pil. Calo- mel Comp.)	\$ 40	\$1 75
AMMON. VALERIANATE, 1 gr.	1 50	7 25	Calomel.		
ANALEPTIC.	60	2 75	Oxysulph. Antimony.		
Pulv. Antimonialis, 1/4 gr.			Guaiacum Resin.		
" Res. Guaiaca, 1 gr.			ANTI-PERICODIC.	80	2 75
" Aloes Soc. 1/2 gr.			Cinchona Sulph. 1 gr.		
" Myrrhæ, 1/2 gr.			Ferri Sulph. Exsic., 1 gr.		
ANDERSON'S SCOTS.	40	1 75	Ext. Quassia, 1/2 gr.		
Pulv. Aloes Socot. 1 gr.			Rhei, 1/4 gr.		
" Sapon. Hispan. 1/2 gr.			Pulv. Myrrhæ, 1/2 gr.		
" Fruct. Colocyn., 1/2 gr.			APERIENT.	90	4 25
" Gambogis, 1/2 gr.			Ext. Nux Vomica, 1/2 gr.		
" Oleum Anis. 1/2 gr.			" Hyoscyam, 1/2 gr.		
ANODYNE.	75	3 50	" Coloc. Comp., 2 grs.		
Pulv. Camphore, 1 gr.			APERIENT, DRYSDALE'S.	60	2 75
Morphia Acetat, 1-20 gr.			Pulv. Rhei, 1 1/2 grs.		
Ext. Hyoscyami, 1 gr.			" Al. Soc. 1 1/2 grs.		
Ol. Res Capsici, 1-20 gr.			" Ipec. 5-12 gr.		
ANTI-BILLIOUS, (Vegetable)	60	2 75	" Nux Vomica, 1/2 gr.		
Pulv. Ext. Coloc. C. 2 1/2 grs.			APERIENT, MILD.	50	2 25
Podophyllin, 1/4 gr.			Ext. Col. Co., 1/2 gr.		
ANTI-CHLOROTIC.	75	3 50	" Hyosc., 1/2 gr.		
Potass. Chlor. 1 gr.			Pulv. Rhei, 1 gr.		
Ferri. Chlor. 1/2 gr.			Ol. Carl.		
Pulv. Podophyllin, 1 gr.			APOCYNUM, 2 grs.	70	3 25
Pulv. Myrrhæ, 1/2 gr.			ASSAFETIDA, U. S. P.	40	1 75
ANTI-CHOROMANIA.	75	3 50	" 2 grs.	40	1 75
Zinci Valer. 2 grs.			ASSAFETIDA, COMP.	40	1 75
Ferri Valer. 1/4 gr.			Assafetida, 2 grs. Ferri Sul. Exc. 1 gr.		
Ext. Sumbul, 1/2 gr.			ASSAFETIDA, ET RHEI.	75	3 50
ANTI-CHILL.	1 00	4 75	Assafetida, 1 gr. - Pulv. Rhei. 1 gr.		
Chinoidine 1 gr.			Ferrum per Hyd. 1 gr.		
Ferri Ferrocyan. 1 gr.			ASTRINGENT.	60	2 75
Ol. Piper Nig 1 gr.			Ext. Geranii, 2 grs.		
Arsenic, 1-20 gr.			Pulv. Opil, 1/4 gr.		
			Ol. Menth. pip., 1-20 gtt.		
			Ol. Res. Zangiber, 1-20 gtt.		
			ATROPIA, 1-60 gr.	75	3 50

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	each.	each.
BALLOON.....	75	3 50
Ext. Col. Comp., 1 gr.		
Hyd. Chlor. Nit., 1 gr.		
Pulv. Ipec., 1/2 gr.		
BELLADONNA EXT., (Edg.) 1/4 gr.....	40	1 75
" " 1/2 gr.....	50	2 25
" " 1 gr.....	60	2 75
BISMUTH SUB. CARB., 3 grs.....	75	3 50
" SUB-NIT., 3 grs.....	75	3 50
BISMUTH ET. NUX VOMICA.....	1 50	7 25
Bismuth Sub. Carb., 4 grs.		
Ext. Nux Vomica, 1/2 gr.		
BISMUTH AND NUX VOMICA.....	1 50	7 25
Bismuth Subnit. 5 grs.		
Ext. Nux Vomica, 1/2 gr.		
BISMUTH AND IGNATIA.....	1 50	7 25
Bismuth Sub-Carb., 4 grs.		
Ext. Ignatia Amara, 1/4 gr.		
CAFFEIN CITRAT., 1 gr.....	4 50	22 25
CALOMEL, 1/2 gr., 1 gr., 2 grs., 3 grs.....	40	1 75
" 1 grs.....	50	2 25
CALOMEL COMP., (Plummer's) 3 grs.	40	1 75
Calomel.		
Oxy Sulph. Antimony.		
Quinacum Resin.		
CALOMEL ET IPECAC. COMP.....	50	2 25
Calomel, 1 gr.		
Row'd Ipecac. Comp., 3/8 grs.		
Ext. Gentiana, q. s.		
CALOMEL ET RHEI.....	\$ 75	\$ 3 50
Ext. Rhei, 1/2 gr. Calomel, 1/2 gr.		
Ext. Coloc. Co., 1/2 gr.		
Ext. Hyoscyami, 1/2 gr.		
CAMPHOR ET HYOSCYAMUS.....	50	2 25
Gum Camph., 1 gr.		
Ext. Hyos. Eng., 1 gr.		
CAMPHOR COMP., 3 grs.....	90	4 25
Gum Camph. 1 gr. Powd. Kino. 1 gr.		
Powd. Opium, 1 gr. Ex. Capsi. 1/2 gr.		
CANNABIS INDICA EXT., 1/2 gr.....	60	2 75
CATHARTIC COMP., U. S. P.....	50	2 25
Ext. Coloc. Comp., 1 1/2 grs.		
" Jalapæ, 1 gr.		
Calomel, 1 gr.		
Pulv Gambogiae, 2-9 gr.		
CATHARTIC. (Vegetable).....	60	2 75
Ext. Coloc. Simp., 1/2 gr.		
Podophyllin, 1/2 gr.		
Pulv. Res. Scam., 1/2 gr.		
" Aloes Socot, 1/4 gr.		
" Cardamomi, 1-9 gr.		
" Saponis, 1/2 gr.		
CATHARTIC COMP. (Improved)		
3 grs.....	60	2 75
Ext. Coloc. Comp., 1 gr.		
" Jalapæ, 1/2 gr.		
Podophyllin, 1/2 gr.		
Leptandrin, 1/2 gr.		
Ext. Hyoscyamus, 1/2 gr.		
" Gentiana, 1/2 gr.		
Ol. Ment. Pip.		
CATHART. COMP. CHOLAGOGUE.....	60	2 75
Res. Podophylli, 1/2 gr.		
Pil. Hydrarg., 1/4 gr.		
Ext. Hyoscyami, 1/2 gr.		
" Nuc Vomica, 1-16 gr.		
Ol. Res. Capsici, 1/2 gtt.		
CAULOPHYLLIN, 1-10 gr.....	40	1 75
CERUM OXALAS, 1 gr.....	1 00	4 75
CHAPMAN'S DINNER PILLS.....	60	2 75
Pulv. Aloes Socot.		
" Rhei Opt.		
Gum Mastic.		
CHINIDIN, 1 gr.....	40	1 75
" 2 grs.....	50	2 25
CHINOIDIN COMP.....	1 00	4 75
Chinoidin, 2 grs.		
Ferri Sulph. Exsic., 1 gr.		
Oleo-Resin, P. P. 1/2 gr.		
CHRETTA, EXT., 3 grs.....	1 50	7 25
CEMICIFUGIN, 1-10 gr.....	40	1 75

	Price per bottle of	
	100	500
	each.	each.
CINCHONA SULPHAT., 3 grs.....	1 00	4 75
CINCHONA SULPHAT., 1 1/2 gr.....	60	2 75
CINCHONIDIA SULPH., 1/2 gr.....	50	2 25
" " 1 gr.....	70	3 40
" " 2 grs.....	1 35	6 25
" " 3 grs.....	2 00	9 50
COCCIA.....	90	4 25
Res. Scamony Pure, 1 gr.		
Pulv. Aloes Socot, 1 1/4 gr.		
" Colocynth, 1/2 gr.		
Potass Sulph., 1/2 gr.		
Ol. Caryoph., 1/2 gr.		
CODIA, 1-16 gr.....	3 05	15 00
COLOCYNTHIDIS COMP., 3 grs. (Ex-tract Colocynth Comp. U.S.P.)	80	3 75
COLOCYNTH ET HYDRARG ET IPECAC.	75	3 50
Pulv. Ext. Coloc Comp., 2 grs.		
Pil. Hydrarg., 2 grs.		
Pulv. Ipecac, 1/2 gr.		
COLOCYNTH ET HYOSCYAMUS.....	75	3 50
Ext. Col. Co., 2 1/2 grs.		
Ext. Hyoscyamus, 1 1/2.		
COOK'S 3 grs.....	50	2 25
Pulv. Aloes Soc., 1 gr.		
" Rhei, 1 gr.		
Calomel, 1/2 gr.		
Sapon Hispan., 1/2 gr.		
COPAIBA, U. S. P., 3 grs.....	50	2 25
COPAIBA COMP.....	80	3 75
Pil. Copaiba.		
Resin Guaiac.		
Ferri Cit.		
Oleo-Resin Cubebæ.		
COPAIBA, ET EXT. CUBEBA.....	80	3 75
Pil. Copaiba, 1 gr.		
Oleo-Resin Cubebæ, 1 gr.		
CORROSIVE SUBLIMATE, 1-12, 1-20,		
1-30 and 1-40 grs.....	40	1 75
DIGITALIN, 1-60 gr.....	75	3 50
DIGITALIS COMP.....	50	2 25
Pulv. Digital, Eng. 1 gr.		
" Scilla, 1 gr.		
Potass, Nit. 2 grs.		
DIURETIC.....	50	2 25
Sapo Hispan, Pulv. 2 grs.		
Sodæ Carb. Exsic. 2 grs.		
Ol. Baccæ Junip, 1 drop.		
DUPUYTREN.....	50	2 25
Pulv. Guaiac, 3 grs.		
Hydg. Chlor. Corros. 1-10 gr.		
Pulv. Opil, 1/2 gr.		
ECCOPROTIC.....	50	2 75
Ext. Aloes Soc., 2 grs.		
" Nuc Vomica, 1-5 gr.		
Res. Podophylli, 3-10 gr.		
Ol. Caryophyll, 1-10 gtt.		
ELATERUM, (Clutterbuck's) 1-10 gr...	95	4 50
EMMENAGOGUE, (Mutet).....	40	1 75
Ferri Sulph., 1 1/2 gr.		
Aloe Socot. Pulv., 1/2 gr.		
Terebinth Alb., 1 1/2 gr.		
EMMENAGOGUE.....	1 40	6 75
Ergotine, 1 gr.		
Ext. Hellebore Nig., 1 gr.		
Aloes, 1 gr.		
Ferri Sulph., 1 gr.		
Ol. Sabina, 1/2 gr.		
FEL. BOVINUM.....	50	2 25
Ox. Gall. 2 grs.		
Powd. Jam Ginger, 1 gr.		
FERRI.....	\$ 40	\$ 1 75
Pulv. Aloes Socot. 1/2 gr.		
" Zingib, Jam., 1 gr.		
Ferri Sulph. Exsic. 1 gr.		
Ext. Coni, 1/2 gr.		
FERRI, (Quevécule's) 1 gr.....	50	2 25
" " 2 grs.....	75	3 75
" CABB. (Vallett's) U. S. P. 3 grs	40	1 75
" CITRAT., 2 grs.....	50	2 25
" COMP., U. S. P.....	40	1 75
FERRI FERROCYANID, 3 grs.....	50	2 25

W. J. M. GORDON'S PRICE LIST OF SUGAR-COATED PILLS.

	Price per bottle of			Price per bottle of	
	100 each.	500 each.		100 each.	500 each.
FERRI IODID, 1 gr.....	65	3 00	HYDRASTIN, $\frac{1}{4}$ gr.....	95	4 50
" LACTAT, 1 gr.....	50	2 25	HYOSCYAMUS EXT., (Eng.) $\frac{1}{2}$ gr.....	40	1 75
" PYROPHOSPHATE, 1 gr.....	40	1 75	IGNATIA AMARA EXT., $\frac{1}{4}$ gr.....	50	2 25
" SULPH. EXSICCAT., 2 grs.....	40	1 75	IPECAC ET OPII, (Pul. Doveri, U.S.P. $\frac{3}{8}$ grs.....	50	2 25
" VALER, 1 gr.....	1 00	4 75	IPECAC ET OPII, 5 grs.....	65	3 00
FERRI ET QUASS., et Nux. Vom. Fer per Hydrogen, $\frac{1}{4}$ gr. Ext. Quassia, 1 gr. " Nux Vomica, $\frac{1}{4}$ gr. Pulv. Saponis, $\frac{1}{2}$ gr.	75	3 50	IODOFORM., 1 gr.....	1 60	7 75
FERRI ET QUINIA CIT., 1 gr.....	75	3 50	IODOFORM ET FERRI.....	2 00	9 75
" " " 2 grs.....	1 40	6 75	Ferrum per Hyd. 1 gr. Iodoform, 1 gr	50	2 25
FERRI ET STRYCHNIAE Strychnia. 1-60 gr. Fer. per Hydro (Quevennes) 2 grs	75	3 50	IRISIN COMP.....	50	2 25
FERRI ET STRYCHNIAE CIT.....	75	3 50	Irisin. $\frac{1}{4}$ gr. Podophyllin, 1-10 gr. Strychnia, 1-40 gr.	60	2 75
Strych. Cit. 1-50 gr. Ferri Cit. 1 gr.	50	2 25	LAXATIVE.....	60	2 75
GALBANA COMP. U. S. P.....	50	2 25	Pulv. Aloes Soc., 1 gr.		
Galbanum, 1 $\frac{1}{2}$ gr.			Sulphur, 1-5 gr.		
Pulv. Myrrh., $\frac{1}{2}$ gr.			Res. Podophyllin 1-5 gr.		
Asafoetida, $\frac{1}{2}$ gr.			" Guaiaci, $\frac{1}{2}$ gr.		
GAMBOGIA COMP.....	40	1 75	Syr. Khamni, q. s.		
Pulv. Gambogia.			LEPTANDRIN COMP.....	1 00	4 75
" Aloe Socot.			Leptandrin, 1 gr. Irisin, $\frac{1}{4}$ gr.		
" Zingib Jam.			Podophyllin, $\frac{1}{8}$ gr.		
" Saponia.			LEPTANDRIN, $\frac{1}{2}$ gr.....	40	1 75
GENTIAN COMP.....	40	1 75	" " $\frac{1}{2}$ gr.....	40	1 75
Ext. Gentian, $\frac{2}{3}$ gr.			" " $\frac{1}{2}$ gr.....	50	2 25
Aloes Socot, $\frac{2}{3}$ gr.			" " 1 gr.....	75	3 50
Pulv. Rhei, $\frac{1}{2}$ gr.			LUPULIN, 3 grs.....	40	1 75
Ol. Carui, 1-5 gr.			MACROTIN, 1-10 gr.....	40	1 75
GONORRHOEA.....	60	2 75	MAGNESIA ET RHEI, (1 gr. each.).....	40	1 75
Pulv. Cubeba, 2 grs.			MORPHIA ACET., $\frac{1}{2}$ gr.....	70	3 25
Bals. Copaiba Solid, 1 gr.			" SULPHATE, 1-20 gr.....	40	1 75
Ferri Sulph. Exsic., $\frac{1}{2}$ gr.			" " 1-10 gr.....	60	2 75
Terebinth, Venet., $\frac{1}{2}$ gr.			" " $\frac{1}{2}$ gr.....	80	3 75
GELSEMI, 1-16 gr.....	40	1 75	" " $\frac{1}{4}$ gr.....	70	3 25
" " $\frac{1}{2}$ gr.....	75	3 50	" " $\frac{1}{2}$ gr.....	1 00	4 75
" " $\frac{1}{4}$ gr.....	50	2 25	" VALEMIAN, $\frac{1}{2}$ gr.....	1 00	4 75
HELOININ, 1-10 gr.....	50	2 75	MORPHIA COMP.....	1 50	7 25
HEPATICA.....	80	3 75	Morph. Sulph. $\frac{1}{4}$ gr.		
Pil. Hydrarg., 3 grs.			Ant. et Pot Tart. $\frac{1}{4}$ gr.		
Ext. Colocynth Comp., 1 gr.			Calomet, $\frac{1}{4}$ gr.		
" Hyoscyami, 1 gr.			NEURALGIC, (Brown Sequard.).....	2 00	9 75
HOOPER, (Female Pills, $2\frac{1}{2}$ grs.....	40	1 75	Ext. Hyoscyami, $\frac{2}{3}$ gr.		
Aloes Socot.			" Conii, $\frac{2}{3}$ gr.		
Ferri Sulph. Exsic.			" Ignat Am. $\frac{1}{2}$ gr.		
Ext. Hellebor.			" Opi $\frac{1}{2}$ gr.		
Pulv. Myrrh.			" Aconiti, $\frac{1}{2}$ gr.		
" Saponia.			" Cannab, 1 $\frac{1}{2}$ gr.		
" Canellae.			" Stramon, 1-5 gr.		
" Zingib Jam.			" Bellad. $\frac{1}{2}$ gr.		
HYDRARGYRI, U. S. P., 5 grs.....	40	1 75	NEURALGIC, (Prof. S. D. Gross).....	3 00	14 75
" " 5 grs.....	50	2 25	Quintia Sulph. 2 grs.		
HYDRARGYRI COMP.....	90	4 25	Morphia Sulph. 1-20 gr.		
Mass. Hydrarg., 1 gr.			Strychnia, 1-30 gr.		
Pulv. Opii, $\frac{1}{2}$ gr.			Acid Arsenious, 1-20 gr.		
" Ipecac, $\frac{1}{4}$ gr.			Ext. Aconiti, $\frac{1}{2}$ gr.		
HYDRARG. IODIDE, $\frac{1}{4}$ gr.....	40	1 75	NEU ALGIC, (Gross) without Morphia 3 00	14 75	
" " $\frac{1}{2}$ gr.....	50	2 25	NEURALGIC IDIOPATH.....	2 00	9 75
" " RUB., 1-16 gr.....	40	1 75	Ext. Hyoscyami, $\frac{2}{3}$ gr.		
" Iod ET OPII. (Ricord's)...	75	3 50	" Conii, $\frac{2}{3}$ gr.		
Hvd'g Iodid., 1 gr.			" Ignat. Am. $\frac{1}{2}$ gr.		
Pulv. Opii, $\frac{1}{2}$ gr.			" Opi, $\frac{1}{2}$ gr.		
			" Aconiti, $\frac{1}{2}$ gr.		
			" Cannab. ind. $\frac{1}{4}$ gr.		
			" Stramon, 1-5 gr.		
			" Belladonnae, $\frac{1}{2}$ gr.		

From Prof. John King, Editor American Eclectic Dispensatory, King's American Practice, etc.

"For the last five or six years I have made use a considerable quantity of Glycerin manufactured by W. J. M. Gordon, of this city, for medicinal purposes, and I have no reason whatever for complaint, as it has in every instance answered the purpose admirably. I have likewise used in my practice the leading Eclectic preparations manufactured by him, as Resin of Mandrake or Podophyllin, Leptandrin, Iridin, Aletrin, Alcoholic Extracts of Black Cohosh, as well as several Fluid Extracts, and have been much pleased with their action, as they have invariably fulfilled the indications for which they are prescribed. I therefore take great pleasure and satisfaction in recommending Mr. Gordon to the Eclectic profession as one among our many excellent manufacturers whose preparations may be relied upon."

[Signed.]

JOHN KING, M. D.

FIRST PREMIUM AWARDED IN 1874.

	Price per bottle of			Price per bottle of	
	180	500		100	500
	each.	each.		each.	each.
NUX. VOMICA, EXT., $\frac{1}{4}$ gr.....	40	1 75	QUINIZ ET FERRI LACT. COMP.....	1 75	8 50
" " $\frac{1}{2}$ gr.....	40	1 75	Quiniaz Sulph., 1 gr.		
OPII, U. S. P., 1 gr.....	75	3 50	Ext. Ignati Amar., $\frac{1}{2}$ gr		
OPII, ET CAMPHORÆ.....	1 00	4 75	Ferri Lactat., 2 grs.		
Pulv. Opii, 1 gr. Camphoræ, 2 grs.			QUINIZ ET FER. ET STRYCHNIN.....	1 75	8 50
OPII ET CAMPH. ET TANNIN.....	1 00	4 75	Quiniaz Sulph., 1 gr.		
Pulv. Opii, $\frac{1}{4}$ gr. Camphoræ, 1 gr.			Ferri Carb. (Vallet's) 2 grs.		
Acid Tannic, 2 grs.			Strych. Sulph. 1-60 gr.		
OPII ET PLUMBI ACET.....	75	3 50	QUINIZ ET FERRI ET STRICH PHOS.....	1 75	8 50
Pulv. Opii, $\frac{1}{2}$ gr			Phos. Quiniaz, 1 gr.		
Plumbi Acet, $\frac{1}{2}$ gr.			" Iron, 1 gr.		
PHOSPHORUS, 1-50 gr.....	1 00	4 75	" Strych., 1-60 gr.		
" 1-100 gr.....	1 00	4 75	QUINIZ, IODOFORM AND IRON.....	3 00	14 75
PHOSPHORUS COMP.....	1 25	6 00	Iodoform, 1 gr.		
Phosphorus, 1-100 gr.			Ferri Carb. (Vallet's) 2 grs.		
Ext. Nux Vomica, $\frac{1}{4}$ gr.			Quiniaz Sulph., $\frac{1}{2}$ gr.		
PHOSPHORUS, IRON & NUX VOMICA..	1 75	3 50	QUINIZ, VALERIANATE, $\frac{1}{2}$ gr.....	2 00	9 75
Phosphorus, 1-100 gr.			" ET FERRIVALER, 2 grs.....	3 50	17 25
Ferri Carb. (Vallet's) 1 gr.			QUINIZ ET HYDRAEG.....	1 75	8 50
Ext. Nux Vomica, $\frac{1}{4}$ gr.			Quiniaz Sulph., 1 gr.		
PODOPHYLLIN, 1-10 gr.....	40	1 75	Mass. Hydrarg., 2 grs.		
" $\frac{1}{2}$ gr.....	40	1 75	Oleo-Resin. Pip. Nig., $\frac{1}{4}$ gr.		
" $\frac{1}{4}$ gr.....	50	2 25	QUINIZ ET STRYCHNIA.....	1 75	8 50
" 1 gr.....	75	3 50	Quinz. Sulph., 1 gr.		
PODOPHYLLIN COMP.....	75	3 50	Strychnia, 1-60 gr.		
Podophyllin, $\frac{1}{2}$ gr.			QUINIZ ET ZINCI VALER.....	4 00	19 75
Ext. Hyoscyami, $\frac{1}{4}$ gr.			Quin. Valer. 1 gr. Zinci. Valer. 1 gr.		
" Nux Vom., 1-16 gr.			RHEI, U. S. P.....	75	3 50
PODOPHYLLIN ET BELLADONNA.....	75	3 50	Pulv. Rhei., 3 grs.		
Podophyllin, $\frac{1}{4}$ gr.			" Saponis, 1 gr.		
Ext. Bellad., $\frac{1}{8}$ gr.			RHEI, COM. U. S. P.....	75	3 50
Ol. Res. Capsici, $\frac{1}{2}$ gr.			Pulv. Rhei., 2 grs.		
Sacchari Lact. 1 gr.			Pulv. Aloes Socot, $1\frac{1}{2}$ grs.		
PODOPHYLLIN COMP., (Ectectic.).....	75	3 50	" Myrrh, 1 gr.		
Podophyllin, $\frac{1}{4}$ gr.			Ol. Menth. Pip.		
Leptandrin, 1-16 gr.			RHEI ET HYDRAEG.....	1 00	4 75
Juglandin, 1-16 gr.			Pulv. Rhei,		
Macrocin, 1-32 gr. Ol. Capsici.			Mass. Hydrarg., } 4 grs.		
PODOPHYLLIN ET HYOSCYAMUS.....	60	2 75	Soda Carb. Ext. }		
Podophyllin,			RHEUMATIC.....	50	4 25
Ext. Hyoscyamus, 2a $\frac{1}{2}$ gr.			Ext. Coloc. Co., $1\frac{1}{2}$ grs.		
PODOPHYLLIN ET HYDRAEG.....	50	2 25	" Colchi Acet., 1 gr.		
Podophyllin, $\frac{1}{4}$ gr.			" Hyoscyami, $\frac{1}{2}$ gr.		
Pil. Hydrarg., 2 grs.			Hyd. Chlor. Milt., $\frac{1}{2}$ gr.		
POTASS BROMID, 1 gr.....	75	3 50	SANTONIN, 1 gr.....	1 00	4 75
" " 5 gr.....	1 25	6 00	SALICINE, 1 gr.....	75	3 50
" IODID, 2 grs.....	85	4 00	" 2 grs.....	1 25	6 00
" PERMANG. CRYST., $\frac{1}{8}$ gr.....	50	2 25	SCILLAC COMP., U. S. P.....	50	2 25
QUINIZ SULPH., $\frac{1}{2}$ gr.....	1 10	5 20	Pulv. Scillace, $\frac{1}{2}$ gr.		
" " 1 gr.....	1 50	7 55	" Zin. Jamaica, 1 gr.		
" " 2 grs.....	3 30	16 25	Gum Ammoniac, 1 gr.		
" " 3 grs.....	4 40	21 75	Pulv. Saponis, $1\frac{1}{2}$ grs.		
QUINIZ VALERIANATE, $\frac{1}{2}$ gr.....	2 00	9 75	SEDATIVE.....	75	3 50
" " 1 gr.....	3 50	17 75	Ext. Sumbul, $\frac{1}{2}$ gr.		
" " 2 grs.....	4 00	19 75	" Valerianæ $\frac{1}{2}$ gr.		
QUINIZ COMP.....	1 75	8 50	" Hyoscyami, $\frac{1}{2}$ gr.		
Quiniaz Sulph., 1 gr.			" Cannab. Ind., 1-10 gr.		
Ferri per Hydrogen, 1 gr.			SILVER NITRATE, $\frac{1}{4}$ gr.....	75	3 50
Acid Arsenious, 1-60 gr.			SILVER IODIDE, $\frac{1}{4}$ gr.....	75	3 50
QUINIZ ET COLOCYNTH. COMP.....	2 25	11 00	STOMACRICA, (Lady Webster's Din- ner Pills.) 3 grs.....	50	2 25
Quiniaz Sulph., 1 gr.			Pulv. Aloes Socot.		
Ext. Col. Comp., 1 gr.			Gum Mastich. Flor. Rosæ.		
" Ignat. Amar., $\frac{1}{2}$ gr.			STRYCHNIA, 1-20, 1-30, 1-40, 1-50, 1-60 gr. 40	1 75	
Piperinc, $\frac{1}{2}$ gr.			SYPHILITIC.....	1 00	4 75
Morph. Sulph., 1-12 gr.			Potass. Iodid., $2\frac{1}{2}$ grs		
QUINIZ ET EXT. BELLADONNÆ.....	1 75	8 50	Hyd'g Chlor. 1-40 gr.		
Quiniaz Sulph., 1 gr.			TART EMITIC, 1-20, 1-10, $\frac{1}{2}$ gr.....	40	1 75
Ext. Belladon., $\frac{1}{4}$ gr.			TENTIC.....	60	2 75
QUINIZ ET FERRI CARB.....	1 75	8 50	Ext. Gentianæ, 1 gr.		
Quiniaz Sulph., 1 gr.			" Humuli, $\frac{1}{2}$ gr.		
Ferri Carb. (Vallet's.) 2 grs.			Ferri Carb. Sacch., $\frac{1}{4}$ gr.		
QUINIZ ET FERRI FERROCYAN.....	2 25	11 60	Ext. Nux Vomica, 1-20 gr.		
Quiniaz Sulph., 1 gr.			Res. Podophylli, 1-25 gr.		
Ferri Ferrocy, 1 gr.			Ol. Res. Zingiber, 1-10 gtt.		
Oleo-Res. Capsici, 1-20 gr.			TRILLIN, 1-10 gr.....	50	1 25
Gelsemin, 1-20 gr.			TRIPLEX.....	75	3 50
Podophyllin, 1-20 gr,			Aloes Socot. 2 grs. Pil. Hydrarg., 1 gr.		
Strychnia, 1-60 gr.			Podophyllin, $\frac{1}{4}$ gr.		
QUINIZ ET FERRI.....	1 75	8 50	VERATRIA SULPHATE, 1-12 gr.....	1 25	6 00
Quin. Sulph. 1 gr.			ZINCI VALERIANATE, 1 gr.....	1 00	4 75
Ferum per Hydrogen, 1 gr.					

W. J. M. GORDON'S FLUID EXTRACTS.

	Per Pint.
Aconite Leaves, <i>Aconitum Napellus</i>	\$1 90
" Root,.....	2 00
Agri-mony, <i>Agri-monia</i> Exp.....	1 75
Aletris, <i>Aletris</i> Far.....	2 25
Aloes.....	2 75
Allspice, <i>Eugenia Pimenta</i>	2 00
Ampelopsis, <i>Ampelopsis Quinap.</i>	2 00
Am Valerian, Lady's Slipper, <i>Cypripedium</i>	3 25
Angelica Root, <i>Angelica</i>	1 55
Angustura Bark, <i>Gilepia</i> Of.....	4 60
Anise Seed, <i>Pimpinella Anisum</i>	3 00
Apple-tree Bark, <i>Pyrus Malus</i>	1 60
Arnica, <i>Arnica Montana</i>	1 75
Arnica Root.....	2 25
Aromatic.....	2 25
Asparagus, <i>Asparagus Off.</i>	1 25
Ash, Black, <i>Fraxinus Saph.</i>	2 60
Ash, White, <i>Fraxinus Arom.</i>	2 00
Avena Root, <i>Genoa Pirella</i>	1 50
Balsam Bir, <i>Frax. Testa</i>	1 50
Balm, Sweet, <i>Melisa</i>	1 25
Balm Gilead.....	1 50
Balmory, <i>Chelonia Chelonia</i>	1 25
Barberry Bark, <i>Berberis</i>	1 25
Bayberry, <i>Myrica Carefra</i>	1 25
Bayberry Comp., <i>Myrica Carefra</i>	1 25
Bearsfoot, <i>Polygonum Fend.</i>	4 00
Belladonna Atrop, <i>Erindonia</i>	2 50
Belladonna Root, <i>Atropa Belladonna</i>	2 50
Beth Root, <i>Trillium</i>	1 75
Bitter Root, <i>Apocynum Andros.</i>	2 00
Bittersweet, <i>Dulcamara</i>	1 50
Bladder Root.....	4 70
Black Alder, <i>Rinos Fertia</i>	1 50
Black Haw, <i>Viburnum Iroa</i>	1 75
Blackberry Root, <i>Rubus Vilosus</i>	1 50
Black Cohosh, <i>Cimifuga</i>	2 00
Black Cohosh Comp.....	2 00
Black Hellebore, <i>Helleb. niger</i>	1 75
Black Pepper, <i>Piper Nigrum</i>	1 75
Bloodroot, <i>Sanguinaria Canad.</i>	1 75
Blue Cohosh, <i>Asclepias tuberosa</i>	1 50
Blue Cohosh Comp.....	2 00
Blue Flag, <i>Iris Versicolor</i>	1 75
Boneset, <i>Eupator Perfol.</i>	1 25
Boxwood, <i>Cornus Florida</i>	1 50
Broom Tops, <i>Scoparius</i>	1 75
Bryonia, White, <i>Byronia Alb.</i>	2 50
Buchu, <i>Barosma</i>	2 50
" Comp.....	2 50
Buchu and Pereira Brava.....	3 50
Buckthorn, <i>Rham Cath.</i>	1 50
Buckthorn Berries.....	1 50
Buckthorn Brake, <i>Osmunda Regalis</i>	2 00
Buzelweed, <i>Lycopus Virginica</i>	1 50
Burdock, <i>Lappa Minor</i>	1 50
Burdock Seed.....	1 50
Butternut, <i>Juglans</i>	1 25
Button Snake Root, <i>Liatra Spicata</i>	1 50
Buckthorn Bark, <i>Rhamnus Frang.</i>	2 00
Cactus Grandiflora.....	18 00
Caenothus, <i>Americana</i>	2 00
Calabar Bean.....	6 00
Calamus Root.....	2 00
Calendula Fls.....	4 00
Cancer Root, <i>Orolanche Virginia</i>	2 25
Canella, <i>Canella Alba</i>	1 50
Cannabis Indica.....	3 50
Cantharides.....	5 00
Caraway Seed.....	3 00
Cardamon Seed.....	7 50
Cardamon Seed Comp.....	3 00
Carpenter Square, <i>Scrophularia Mar.</i>	1 75
Caster Leaves, <i>Ricinus Comis.</i>	3 00
Cascarilla, <i>Croton Eluteria</i>	1 00
Caster Oil Bean.....	8 00
Caster Oil Bean Arom.....	3 00
Cassia, <i>Cinnamonum</i>	3 00
Catnip, <i>Nepeta Catritia</i>	1 25
Catechu.....	2 60
Cayenne, <i>Capitatus</i>	3 00
Centaurry, Red, <i>Lobelia</i>	1 50
Chamomile, <i>Anthem.</i>	1 75
Cherberry, <i>Mitchella Repens</i>	1 25

	Per Pint.
Cherry Bark, Wild, <i>Prunus Virg.</i>	1 75
" Comp.....	1 75
Chestnut Leaves, <i>Castanea Americana</i>	2 00
Chiretta, <i>Agath Chir.</i>	4 00
Cinnamon Bark, "Ceylon," <i>Cassia</i>	3 00
Cinchona Aromat.....	4 25
Cinchona, Cal. U. S. P.....	4 25
" Comp.....	2 50
" Palad.....	2 50
" Rub.....	4 25
Cleavers, <i>Gallium</i>	1 25
Cloves, <i>Caryophyllus Arom</i>	2 60
Clover Heads, <i>Trifolium Pratense</i>	2 00
Coca, <i>Erythroxylon Coca</i>	7 50
Cochitoot, <i>Coccus Cacti</i>	4 00
Coffea, <i>Coffea Arabica</i>	3 00
Colchic Root, <i>Colchicum Autumnale</i>	2 00
Colchicum Seed, <i>Colchicum Autumnale</i>	2 75
Collinsonia, <i>Collinsonia Can.</i>	1 75
Colocyth, <i>Colocythidis</i>	2 25
Colocyth Comp.....	2 25
Colombo, <i>Cocculus Palmatus</i>	2 50
" Amer., <i>Fraxena</i>	1 25
Coltsfoot, <i>Tussilago</i>	1 50
Comfrey, <i>Symplegium</i>	1 50
Condango.....	4 10
Conium, <i>Conium Maculatum</i>	2 00
Conium Seed, <i>Conium Mac.</i>	2 50
Coriander Seed, <i>Corandrum Sativum</i>	2 00
Cotton Root Bark, <i>Gossypium Herbaceum</i>	3 00
Cramp Bark, <i>Viburnum</i>	1 50
Cranesbill, <i>Geranium Maculatum</i>	1 75
Caraway.....	3 50
Cubobs, Alcoholic, <i>Cubeba</i>	2 50
" Ethereal, <i>Alco-Rosina</i>	7 35
Culver's Root, <i>Lepanodactylus Virg.</i>	2 00
Celery Seed.....	3 00
Couch Grass, <i>Triticum Rep.</i>	2 00
Cambata.....	6 00
Dandelion, <i>Theracium</i>	2 00
" Comp.....	2 00
" and Seana.....	1 75
Deerberry Root, <i>Rubus Toxicaria</i>	1 50
Deer Tague, <i>Liatris odor.</i>	6 00
Dog Wood, <i>Cornus Flor.</i>	1 25
Dragon Root, <i>Arisaema Triphyllum</i>	2 50
Dwarf Elder, <i>Arctia Nigida</i>	1 75
Evening Primrose, <i>Oenothera Bienn.</i>	4 00
Elder Flowers, <i>Sambucus</i>	1 50
Elecampane, <i>Inula</i>	1 25
Ergot and Cotton Root.....	3 50
Ergot Acet, <i>Saccharum</i>	5 00
Ergot, <i>Ergot</i>	5 00
Ergot Etherial.....	6 00
Eucalyptus, <i>Globulus</i>	4 50
Euphasia, <i>Euphasia Off.</i>	1 75
False Unicorn Root, <i>Heteronia Dioica</i>	3 00
Fennel Seed, <i>Foeniculum Vulgare</i>	3 00
Fern Sweet, <i>Complanata</i>	1 25
Fever Bush, <i>Encelone Odoriferum</i>	1 45
Fever Tree, <i>Eucalyptus Glob.</i>	6 00
Feverfew, <i>Parathrum</i>	1 25
Flawort.....	1 75
Fireweed, <i>Erechtites</i>	1 50
Flcubane, <i>Ecygeron</i>	1 50
Flaxseed, <i>Ligustic</i>	1 75
Fringe Tree, <i>Chionanthus Virg.</i>	3 00
Froswort, <i>Helianthemum</i>	1 50
Galls, <i>Galla</i>	2 75
Garden Celandine, <i>Chelidonium</i>	1 50
Gentian, <i>Adiantum Sativum</i>	2 00
Ginsengum, <i>Gins. Sump.</i>	2 50
Gentian Gentiana Lutea.....	1 50
" Compound.....	1 75
Ginger, <i>Zingiberis</i>	2 25
Golden Rod, <i>Solidago</i>	1 25
Golden Seal, <i>Hydrastis</i>	2 00
Gold Thread, <i>Coptis</i>	1 75
Gravel Plant, <i>Apocyn Repens</i>	1 75
Gre-l. Veterian.....	1 75
Guaiac Wood, <i>Guaiacum Off.</i>	1 50
Gurana, <i>Paulinia Sorbilla</i>	10 00
Grindelia Robusta.....	4 00
Hardhack, <i>Spirea Tormentosa</i>	1 25

W. J. M. GORDON'S PRICE LIST OF FLUID EXTRACTS.

	Per Pint.
Kellebore, <i>Acaerleon. Potarum Viride</i>	\$1 00
" Black, <i>Helicobus Nig.</i>	1 75
" White, <i>Potarum Alb.</i>	2 00
Hemlock, <i>Pinus Canadensis</i>	1 25
Hemlock, <i>Hyoscyamus</i>	2 50
High Cranberry, <i>Viburnum Opulus</i>	1 50
Hearthorn, <i>Morruvium</i>	1 50
Hops, <i>Humululus</i>	2 50
Horse Radish, <i>Cochlearia Armor.</i>	2 00
Morsermint, <i>Monarda</i>	1 50
Hydrangea, <i>Hydrangea Abariscens</i>	1 75
Hyssop, <i>Hyssopus</i>	1 50
Ignatia Bean, <i>Ignatia Amara</i>	3 50
Indian Hemp, <i>Apocynum Canap.</i>	2 00
" Foreign, <i>Cannabis Indica</i>	3 50
" White, <i>Asclepias Inc.</i>	1 75
" Physic, <i>Gillenia Tufoliata</i>	1 25
" Turnip, <i>Arum Tufph.</i>	1 50
Ipecac, <i>Americana, Gillenia</i>	1 50
Ipecac, <i>Cephaelis Ipecacuanha</i>	6 00
" and Seneca.....	6 00
Jalap, <i>Jalapa</i>	\$ 4 00
Jersey Tea, <i>Ceanothus Armor.</i>	1 50
Jaborandi, <i>Pilocarpus Pinnatus</i>	7 50
Johnswort, <i>Hypericum</i>	1 25
Juniper Berries, <i>Juniperis Communis</i>	1 25
Kino.....	2 00
Koussou, <i>Brayera Anthelmintica</i>	7 50
Ladies Slipper, <i>Cypripedium Pubescens</i>	2 25
Larkspur Seed, <i>Delphinium Consolida</i>	1 00
Laurel Leaves, <i>Kalmia</i>	1 75
Lemon Peel, <i>Citrus Limonium</i>	1 25
Lettuce, <i>Lactuca Saliva</i>	1 50
Licorice, <i>Glycyrrhiza Glabra</i>	1 50
Life Root, <i>Senecio Aureus</i>	1 50
Lily White, <i>Pond, Nymphaea</i>	1 25
Liverwort, <i>Hepatica Americana</i>	1 50
Lobelia, <i>Lobelia Inflata</i>	1 75
Lobelia Seed, <i>Lobelia Inflata</i>	2 50
" Compound.....	1 75
Logwood, <i>Hamatocylon</i>	1 25
Love, <i>Ligusticum Levisti</i>	1 50
Lungwort, <i>Pulmonaria</i>	1 50
Lupulus, <i>Lupulina</i>	3 50
Lupulin, <i>Comp.</i>	3 00
Malt.....	2 00
Myrrh.....	2 00
Nice, <i>Myrtica Fragrans</i>	5 00
Maidenhair, <i>Adiantum Ped.</i>	1 50
Mule Fern.....	1 50
Mandrake, <i>Comp.</i>	1 75
Mandrake, <i>Podophyllum</i>	1 75
Marsh Mallow, <i>Althaea Off.</i>	1 50
Marsh Marigold, <i>Statice Limonium</i>	1 25
Masterwort, <i>Hernandus Lonatan</i>	2 00
Matico, <i>Achillea Elongata</i>	2 25
Mezeron Bark, <i>Mezerum</i>	2 00
Motherwort, <i>Leonurus</i>	2 00
Mountain Ash Bark, <i>Sorbus Aacap.</i>	1 50
Mugwort, <i>Artemisia</i>	1 25
Musk Root, <i>Sassa</i>	5 00
Mullein Leaves, <i>Verbascum</i>	1 25
Nettle, <i>Urtica Dioica</i>	1 50
Nutgall, <i>Galla</i>	1 50
Nutmeg, <i>Myristica</i>	6 00
Nutmegs <i>Myristica Frag.</i>	6 00
Nux Nomicia, <i>Strychnos Nux Vomica</i>	2 25
Oak Bark Red, <i>Quercus Rob.</i>	1 25
Opium, <i>Aqueous, Strength of Laudanum</i>	3 50
" Deodorized.....	3 50
Orange Comp., <i>Aurantia Comp.</i>	5 00
Orange Peel, <i>Aurantium</i>	1 50
Orange Peel Bitter, <i>Citrus Valgatos</i>	1 50
Orris Root, <i>Iris For</i>	1 75
Parilla Brava, <i>Cissampelos Paretia</i>	4 00
Parilla Yellow, <i>Menap. Com.</i>	1 40
Partridge Berry, <i>Comp.</i>	1 00
Partridge Berry, <i>Mitchella Repens</i>	1 75
Peach Tree Bark, <i>Amgdalus Persica</i>	1 50
Pellitory, <i>Pyralthrum</i>	2 00
Pennyroyal, <i>Hedeoma Pulegiola</i>	1 50
Peppermint, <i>Mentha Peppertia</i>	1 25
Peach Leaves, <i>Amgdalus Persica</i>	1 75
Peach Pit,.....	3 00

	Per Pint.
Pink Root, <i>Comp.</i>	2 50
" " <i>Spigelia Maritima</i>	2 50
" " and Seneca.....	2 00
Pipsissewa, <i>Chenopodia Umb.</i>	1 50
Pitcher Plant, <i>Sarracenia Purpurea</i>	2 50
Plantain Leaves, <i>Plantago Major</i>	1 50
Pleurny, <i>Asclepias Tub.</i>	2 00
Poke Berries, <i>Physolacca Fucca</i>	1 75
Poison Oak, <i>Rhus Tox.</i>	3 00
Poke Root, <i>Physolacca Dec.</i>	1 50
Poplar Bark, <i>Populus</i>	1 25
Poppies, <i>Popaver Somniferum</i>	1 75
Pomegranate Bark, <i>Punica Granatum</i>	2 00
Pond Lilly, <i>Nymphaea Odorata</i>	1 25
Prickly Ash, <i>Santhoxylum</i>	1 75
" Berries, <i>Xanth. Fucca</i>	3 00
Ptelea, <i>Ptelea Trifoliata</i>	2 00
Pulsatilla.....	2 50
Pumpkin Seeds, <i>Ocurebita Pepo</i>	3 00
Quassia, <i>Sinapura Erceba</i>	1 50
Queen of Meadow, <i>Eupatorium Purp.</i>	1 50
Raspberry Leaves, <i>Rubus Strig.</i>	1 50
Red Root, <i>Ceanothus Amer.</i>	2 00
Red Saunders, <i>Santalum Rubrum</i>	1 25
Rhatany, <i>Krameria</i>	2 00
Rhubarb, <i>Rheum</i>	5 00
" Aromatic.....	4 75
" and Potass.....	4 00
" and Seneca.....	4 00
Rosin Weed, <i>Silphium</i>	3 00
Rue, <i>Ruta Graciosa</i>	2 00
Saffron, <i>Crocus Sativus</i>	4 00
Sage, <i>Salvia Officinalis</i>	1 50
Sarsaparilla, <i>Amer.</i>	1 50
" Compound.....	2 25
" Sulfur.....	2 25
" for Syr. Sarsaparilla Comp.....	2 25
" and Dandelion.....	2 50
Sassafras, <i>Sassafras. Offic.</i>	1 50
Sandal Wood, <i>Santalum Alb.</i>	5 00
Savin, <i>Juniperus Suvina</i>	1 50
Savory, <i>Satureia Hostensia</i>	1 50
Scull Cap, <i>Scutellaria</i>	2 25
Scullcap, <i>Comp.</i>	1 75
Senecio, <i>Senecio Grac.</i>	1 50
Seneca, <i>Polygala Senega</i>	4 90
Seneca, <i>Cassia Auriculata</i>	1 50
" Compound.....	2 00
" and Dandelion.....	1 40
" and Jalap.....	3 00
" and Rhubarb.....	4 75
Sheep Laurel, <i>Kalmia Lat.</i>	2 00
Silkweed, <i>Asclepias Syr.</i>	2 00
Sinapura, <i>Sinapura Offic.</i>	3 50
Skunk Cabbage, <i>Dracontium</i>	1 50
Snake Root, <i>Virginia, Serpentina</i>	3 00
Sour Tree Bark, <i>Quillaga Sapon.</i>	2 00
Sourwort, <i>Saponaria</i>	1 50
Solomon's Seal, <i>Comp. Polygonatum</i>	1 50
Southernwood, <i>Artem Abrotanum</i>	1 50
Speedwell, <i>Veronica Off.</i>	2 00
Spearmint, <i>Mentha Viridis</i>	1 25
Spicewood Berries, <i>Comp.</i>	3 00
Spleneard, <i>Aralia Racemosa</i>	1 50
Squaw Vine, <i>Mitchella Rep.</i>	2 00
Squill, <i>Scilla Maritima</i>	1 50
" Compound.....	3 00
Staphysagria.....	4 50
Star Grass, <i>Aletris</i>	2 00
Stillinga, <i>Stillinga Silvestris</i>	2 50
" Compound.....	2 50
Stone Root, <i>Collinsonia</i>	1 75
Stramonium Leaves, <i>Stram. Fol.</i>	1 75
" Seed.....	1 75
St. John's Wort, <i>Hypericum</i>	1 55
Sumach, <i>Rhus Glabrum</i>	1 25
Sumach Berries, <i>Rhus Glabrum</i>	1 25
Summer Savory, <i>Satureia Hort.</i>	1 50
Sundew, <i>Drosera Rotundifolia</i>	4 50
Sunflower Seed.....	1 75
Sweet Fern, <i>Comptonia Asp.</i>	1 00
Sweet Flag, <i>Acorus Calamus</i>	1 50
Sweet Gale, <i>Myrica Gale.</i>	1 50
Tag Alseer, <i>Alnus Rubra</i>	1 25

FIRST PREMIUM AWARDED IN 1874.

	Per Pint.		Per Pint.
Tamarac Bark, <i>Larix Amer.</i>	2 00	White Oak Bark, <i>Quercus Alba</i>	" 1 00
Tansy, <i>Tanacetum</i>	1 25	White Poplar Bark, <i>Populus Trem.</i>	" 1 50
Thimble Weed.....	1 75	Whiteoak Bark, <i>Aleiodendron</i>	" 1 25
Thoroughwort, <i>Eupator Perfol.</i>	1 25	Wickup, <i>Epilobrium Pal.</i>	" 2 50
Thyme, <i>Thymus Vulgaris</i>	1 25	Wild Ginger, <i>Asarum</i>	" 2 00
Tobacco, <i>Nicotiana Tabac.</i>	2 00	Wild Indigo, <i>Baptista Tinct.</i>	" 1 50
Tonka Bean, <i>Dipteris Odorata</i>	3 00	Wild Turnip, <i>Arum Triphy.</i>	" 1 25
Tormentilla, <i>Potentilla Tormentilla</i>	2 00	Wild Yam, <i>Dioscorea Vilosa</i>	" 1 50
Trailing Arbutus, <i>Epigaea Repens</i>	2 00	Willow Bark, <i>Salix</i>	" 1 25
Turkey Corn, <i>Corydalis</i>	3 00	Wintergreen, <i>Gaultheri Proc.</i>	" 1 50
Turmeric, <i>Curcuma Longa</i>	1 25	Witch Hazel, <i>Hamamelis Virg.</i>	" 1 50
Twin Leaf, <i>Jeffersonia Diph.</i>	1 50	Witch Hazel Leaves, <i>Hamamelis Virg.</i>	" 1 50
Unicorn Root, <i>Aletris</i>	3 00	Wormseed, <i>Chenopodium</i>	" 1 20
Uva Ursi, <i>Arctostaphylos</i>	1 50	Wormwood, <i>Artemisia Absinth.</i>	" 1 50
Valerian, <i>Valerian Offic.</i>	2 00	Yarrow, <i>Achillea Millefol.</i>	" 1 25
Veratrum Viride.....	2 50	Yellow Dock, <i>Comp.</i>	" 1 50
Vervain, <i>Verbena Offic.</i>	" 1 25	Yellow Dock, <i>Rumex Crispus</i>	" 2 00
Wahoo, <i>Eunonymus</i>	" 2 25	Yellow Jessamine, <i>Gelsentum</i>	" 2 50
Water Pepper, <i>Polygonum Punc.</i>	" 1 25	Yellow Parilla, <i>Menispermum Canad.</i>	" 2 00
Watermelon Seed, <i>Cucurbita Citrullia</i>	" 1 25	Yerba Santa, <i>Eriodyction Glutin.</i>	" 4 50

RESINOIDS.

I am largely engaged in manufacturing these articles, which are neatly put up in bottles containing one ounce, and guarantee to keep in any climate.

ALiberal Discount Made, According to Amount Purchased.

Podophyllin, from Mandrake.....oz	60	Hemathoxyllin.....	" 1 00
Pipecandrin, from Culver Root.....	65	Humulin, from Hops.....	" 1 50
Unicifugin, from Black Cohosh.....	" 75	Hydrastine, from Golden Seal.....	" 2 50
Macrotin, from Black Cohosh.....	" 75	Hydrastin, principles Com'l.....	" 2 50
Aconitin.....	" 3 00	Hydrastia, Mur(frm'y cal'd Hyd'stine).....	" 3 00
Aletrin, from Aloerix.....	" 2 50	" Nitrate.....	" 3 50
Aluvin, from Pug Alder.....	" 1 00	" Sulph.....	" 4 00
Atropine.....	" 3 00	Hyoseyamin, from Henbane.....	" 3 50
Anipolopsin, from American Ivy.....	" 1 25	Irisin, from Blue Flag.....	" 1 00
Apocynin, from Dogsbane.....	" 2 00	Jalapin, from Jalap.....	" 4 00
Asclepedin, from Pleurisy Root.....	" 1 50	Juglandin, from Butternut.....	" 1 25
Barpsin, from Wild Indian.....	" 1 25	Lobelin, from Lobelia.....	" 2 60
Barosmin, from Buchu.....	" 3 00	Leontodin, from Dandelion.....	" 1 00
Caulophyllin, from Blue Cohosh.....	" 80	Lunulin, from Hops.....	" 1 00
Cerasin, from Cerasus.....	" 1 00	Lycopin, from Bugle Weed.....	" 1 75
Chelonin, from Balmomy.....	" 1 75	Menisperm, from Yellow Parilla.....	" 1 50
Chymaphyllin.....	" 1 75	Mvricin, from Baberry.....	" 1 00
Colinsonia, from Stone Root.....	" 2 00	Panduratin, from Con. Pandu.....	" 1 50
Colocyenthin, from Colocyath.....	" 3 00	Phytolacin, from Gar. or Poke.....	" 1 50
Cornin, from Dogwood.....	" 1 00	Populin from Aspen Pop.....	" 1 00
Coryalin, from Turkey Pea.....	" 3 00	Prunin, from Wild Cherry.....	" 1 00
Cypripellin, from Ladies' Slipper.....	" 1 75	Ptelein, from Water Ash.....	" 2 00
Digitalin, from Foxglove.....	" 1 50	Rhusin, from Sumach.....	" 1 25
Dioscorein, from Wild Yam.....	" 2 00	Rumicin, from Yellow Dock.....	" 1 25
Eryngin, from Cornsnake Root.....	" 1 25	Sanguinarina, from Blood Root.....	" 1 25
Eunouymin, from Wahoo.....	" 1 75	" Sulph.....	" 5 50
Eupatorian, from Boneset.....	" 1 00	Scutclarin, from Skulleap.....	" 2 00
Eupurpurin, from Queen Mead.....	" 2 00	Senecionin, from Life Root.....	" 1 50
Frazierin, from Am. Columbo.....	" 1 25	Smilacin.....	" 3 00
Gelsamio, from Yellow Jessamin.....	" 3 00	Stillingin, from Stillingia.....	" 2 25
Geranin, from Cranesbill.....	" 1 05	Trellin, from Bethroot.....	" 1 00
Gillenin, from American Ipecac.....	" 2 50	Voratin, from Am. Hellebore.....	" 2 50
Gossypin, from Cotton Root.....	" 1 25	Vorbenin, from Blue Vervain.....	" 1 25
Hammamein, from Witch Hazel.....	" 1 25	Yerbinin, from High Cranberry.....	" 2 00
Helonin, from Unicorn Root.....	" 2 50	Xanthoxyllin, from Prickly Ash.....	" 1 50

From New York Druggists' Price Current, April 19, 1871.—

"For some time past our attention has been called to the Pure Inodorous Glycerin of W. J. M. Gordon's, of Cincinnati, and having obtained a bottle of the same from parties who did not know our object, we have submitted Mr. Gordon's Glycerin to several tests, and are happy to state that his Glycerin is, in every particular, what Mr. G. claims—a pure and inodorous article, which we heartily recommend to the trade."

From Chicago Medical Times:—

"As a manufacturer of Glycerin, Mr. Gordon is known throughout the civilized world. His pure Glycerin we regard equal to any made. He is now turning out very handsome Sugar-Coated Pills, as well as many other Pharmaceutical Preparations. An immense stock of Botanic goods is a comparatively recent feature in his trade."

EXTRACT FROM A LETTER.

DEAR SIR:

NEWPORT, COCK CO., TENN., October 16th, 1875.

I do truly think, as far as I have tried your Drugs, they are the best I have ever used, and I have obtained Drugs from all points of the U. S. in the 30 years I have been practicing medicine. Pardon me for saying this personally to you, but your Drugs operate so true and good, and never disappoint me, that I cannot help telling you of it. Please send articles ordered, to the above address.

Yours Truly,

J. L. FORMAN, M. D.

THE CINCINNATI MEDICAL NEWS.

VOL. XII. No. 140.
Old Series.

AUGUST, 1879.

VOL. VIII. No. 8.
New Series.

ORIGINAL CONTRIBUTIONS.

Michigan State Board of Health.

Reported for the MEDICAL NEWS.

The quarterly meeting of the State Board of Health was held in the office of the Secretary, in the new Capitol, Lansing, Tuesday, July 8, 1879.

The following members were present: R. C. Kedzie, M. D., of Lansing, President; Homer O. Hitchcock, M. D., of Kalamazoo; Hon. Leroy Parker, of Flint; Rev. Daniel C. Jackson, D. D., of Pontiac; Henry F. Lyster, M. D., of Detroit; John H. Kellogg, M. D., of Battle Creek; and Henry B. Baker, Secretary.

PRESIDENT'S ADDRESS.

President Kedzie gave a brief history of the legislation relative to illuminating oils in this State, beginning with the law of 1869. This law provided for county inspection, but was not generally enforced. The Legislature of 1873, which passed the law for establishing the State Board of Health, also passed a law raising the flash-test for oil to 150° F. The State Board of Health began its work with this law in force. In 1875 the Legislature reduced the flash-test to 140° F., and increased the inspection fees. There were scarcely any casualties under this law, but the illuminating qualities of the oil were not always good. Dr. Kedzie, as a committee of the State Board of Health, devised the chill-test, which was recommended to, and adopted by, the Legislature of 1877, and secured a good and safe illuminating oil. The Legislature of 1879 abolished the chill-test, and reduced the flash-test to 120° F. Each time the law has been changed the

cost of inspection has been increased, and the last law will entail an annual expense of about \$12,000 for inspection, above the expense incurred under the law of 1877.

INTERESTED FOREIGNERS.

The President presented a letter from Theodore H. Monk, of the meteorological office at Toronto, asking for a set of reports of this board, as they desire to inaugurate a system of health and weather observations similar to that of the Michigan board. Secretary Baker presented a communication from the Secretary of the Epidemiological Society, of London, expressing great interest in the work of the Michigan board, especially that for the registration of disease.

A letter was presented from Mr. Avery, of Baltimore, relative to

LEAD POISONING,

As set forth by Dr. Kedzie's articles on that subject, and claiming that he had demonstrated that electroplating the tin cans used in preserving fruit, and tin utensils of all kinds, with a thin coating of silver, would prevent any poisoning thereby.

CATTLE DISEASES.

A communication was presented from A. J. Murray, veterinary surgeon at Detroit, relative to "Cattle Diseases in Michigan," and their relation to public health; also a part of a letter from a member of the National Board of Health on a similar subject. These communications were referred to the new standing committee on "Diseases of Domestic Animals as Relates to Public Health."

THE SECRETARY'S REPORT.

Secretary Baker presented his report of the work in the office during the last three months. It included the distribution of a large number of the regular reports and other documents, and of the registration report of births, marriages, and deaths. These were sent to meteorological observers, regular correspondents, sanitary exchanges, and other persons interested in such subjects in Michigan. Names and addresses of health officers were received from seven hundred and sixty townships, one hundred and thirteen villages, and thirty-nine cities. Abstracts of the proceedings of the last meeting were pre-

pared and sent to nine sanitary journals, who desired the same for publication. These journals are exchanges of the board. Meteorological observations were regularly taken in the office of the board, and a condensed statement is each week published in the *Lansing Republican*. Weekly reports from over sixty observers of diseases have been received, examined, and filed. Work on the compilation of these reports, and of the meteorological reports, has been continuously going on. The correspondence of the office is continually increasing, six hundred and six pages of the letter-book being used in copying letters. Quite a number of meteorological instruments have been purchased and sent to observers, and some new stations have been established. A demand for weekly reports of diseases has been made on health officers of cities, as fast as the names have been furnished by the city recorders. The Secretary has spent considerable time in supervising vital statistics, particularly those for 1877, and is studying deaths from certain diseases in a series of years. Many persons have visited the office of the board during the past three months, and most of them express surprise at the magnitude of the work carried on by the board. Communications have been received and referred to the chairmen of appropriate committees, as follows: Dr. Kedzie, fourteen; Dr. Hitchcock, sixteen; Leroy Parker, four; Dr. Jacokes, one; Dr. Lyster, eight.

The board has in mind the

EXAMINATION OF CANDIDATES

In sanitary science; and the examination papers on this subject, used in the University of London and other foreign colleges, have been secured for study in this connection; and Dr. Lyster reported a plan for the examination of physicians in sanitary science.

THE STANDING COMMITTEES

Were reorganized, as follows:

Epidemic diseases, etc.—Dr. H. O. Hitchcock.

Sewerage and drainage—Dr. H. F. Lyster.

Food, drinks, and water supply—Dr. R. C. Kedzie.

Ventilation, heating, etc.—Dr. D. C. Jacokes.

Climate, etc., in relation to health—Dr. H. F. Lyster.

Disposal of decomposing organic matter—Dr. J. H. Kellogg.

Poisons, chemicals, accidents, etc.—Dr. R. C. Kedzie.
Occupation, etc., in relation to health—Dr. J. H. Kellogg.
Relations of schools to health, etc.—Dr. D. C. Jacokes.
Sanitary survey—Dr. Jacokes, Dr. H. B. Baker, and Leroy Parker.

Death-rate—Dr. Baker.

Legislation—Leroy Parker.

Finances of the board—Leroy Parker.

Mental hygiene—Dr. Hitchcock.

Diseases of animals—Dr. Baker.

Dr. Hitchcock made a report on

DEPOT PRIVIES,

Which includes letters from the late Dr. Beech, of Coldwater, and J. E. Curtis, Superintendent of the Michigan division of the L., S. & M. S. Railroad, and made specific recommendations for remedying the nuisances which now prevail. Depot privies should never have a vault, but should be water-closets connected with a sewer, or be supplied with dry earth or coal ashes; and it should be made the special duty of a station employe to see that the floors are scrubbed daily, the closets kept clean and in perfect operating order, and the whole closet thoroughly disinfected each day. In places where a sewer is not accessible, the closet in which the dry earth or coal ashes is used should be often cleaned and the refuse buried. For water-closets, he recommended "Rhoads' Porcelain-Seated Hopper Closet," supplied with "Meyer's No. 1 Waste-Preventing Cistern." This closet is arranged to flush when the door is opened, and is just the thing for public places, as the hopper is non-absorbent and the shape prevents persons using it from getting on it with their feet. For smaller stations, where a water-closet could not be used, he described and recommended an exceedingly simple dry-earth closet, but insisted upon the necessity of every-day attention to it by an employe of the station.

The committee on

SANITARY CONVENTIONS

Recommended that one be held in Detroit, in December or January, and the next at Grand Rapids. Efforts will be made to get as large an exhibition of sanitary appliances together as possible. Manufacturers and dealers in sanitary appliances are requested to forward cata-

logues, advertisements, etc., and to correspond with the Secretary relative to placing their wares on exhibition.

A SAMPLE OF RED FLANNEL,

From Dr. Nash, of Lapeer, reported to have caused sores, had been examined by Dr. Kedzie, and found to have been colored with aniline which contained arsenic and tin.

REPORTS OF COMMITTEES.

Leroy Parker made a report as to the proper method of bringing suit in cases of nuisance; also, relative to collecting the statistics for the next United States census, and relative to authority of boards of health to kill horses afflicted with the glanders.

Dr. Kedzie made a report relative to the proceedings of the Sanitary Council of the Mississippi Valley, held at Memphis, and in conjunction with the National Board of Health, at Atlanta. He gave an extended account of the discussions, notably of that on "Quarantine." He spoke of a conversation with Dr. Billings, of the National Board of Health, in which the following statements were made by Dr. Billings: "The quarantine to be established by the National Board of Health must be uniform for the whole country. It is therefore necessary to be very guarded in the action of the National Board, lest requirements which are essential for New Orleans and Mobile may destroy the commerce of New York and Boston. It is proposed to make such sanitary regulations as may and should be enforced in all places, and only such *national restrictions* by quarantine as will not disturb commerce seriously, and for any stringent quarantine in points especially threatened, to secure action by State and local quarantine."

A resolution was adopted favoring the organization of sanitary associations auxiliary to local boards of health.

The usual number of bills were audited, and ordinary business transacted. The next meeting of the board will be on October 14, 1879, at 9 o'clock A. M.

The Hand as a Curette in Post-Partum Hemorrhage.

BY HENRY P. C. WILSON, M. D., BALTIMORE, MD.

On the 21st of May, 1878, at 8.30 A. M., I was called to attend Mrs. J. in her fourth labor; the child was born at

10 A. M., and weighed ten pounds. The head had presented with the occiput to the left acetabulum. There was no necessity for interference in the delivery of the child, but, at her earnest solicitation, I gave a little chloroform from time to time, not enough, however, to destroy consciousness before the last two pains, when it was pushed to the point of destroying her consciousness of the birth of the child.

The head was received with my right hand as it passed comfortably and safely over the perineum, the uterus being grasped firmly with my left hand on the abdomen for the purpose of making it follow the child with the last pain, so as to secure expulsion of the placenta, and, by firm contraction, guard against hemorrhage. The cord was wrapped around the child's neck.

The nurse's hand was made to take the place of my hand, above the pubes, in holding the firmly contracted uterus, while I tied and severed the cord, and removed the child to another part of the bed.

My left hand then took the place of the nurse's hand on the abdomen, when I found that the uterus had enlarged again. The index finger of my right hand found the placenta in the vagina, and a little tightening of the cord brought it away in a perfect state.

Up to this point there had been no visible hemorrhage; but in a few seconds blood poured from her in a perfect avalanche, deluging the bed and running down upon the floor.

I called for ice, and at once passed my right hand into the cavity of the uterus, manipulating its surface, while I grasped its fundus firmly with my left hand. The uterus responded promptly, expelling my hand into the vagina, while I held it firmly contracted with my hand above the pubes. A drachm dose of Squibb's fluid extract of ergot was given, and I considered everything safe; but in a few minutes I felt the uterus enlarging, and another large gush of blood came from the vagina.

My right hand, containing a lump of ice, was a second time passed into the cavity of the uterus, the clotted blood turned out, and the hand and ice retained there until the uterus expelled them. The hand was withdrawn, but the ice left in the vagina. Drachm doses of Squibb's fluid extract of ergot were being given every five or ten

minutes, and two drachms were introduced hypodermically, but it brought no response from the uterus.

A second time I considered the case safe, so firm was the womb contracted under my hand, but I was doomed to disappointment.

In a few minutes the uterus expanded for the third time, and blood came gushing from the vagina. My hand, with a large lump of ice, was a third time carried into the cavity of the uterus with the same results as above.

Allowing the hand and ice to remain in the vagina against the os uteri, the os was found speedily to relax, and up they went for the fourth time into the uterus, to be expelled as before and with no better results.

I then threw half an ounce of Squibb's fluid extract of ergot into the rectum; and with this she had taken one and a half ounces of ergot, and still it had shown no perceptible effect in producing tonic contraction of the uterus. The patient had felt nothing like after-pains.

She was becoming nauseated. I could push the ergot no further. Her face was blanched, her sight dim, and her pulse very frequent and feeble. Instead of profuse hemorrhage at intervals, there was now constant and free bleeding, with an occasionally increased gush. The uterus under the hand, on the abdomen, was evidently much larger than it ought to be, and full of blood.

I began to be apprehensive of the result. The uterus showed not the slightest disposition to tonic contraction. It would contract and expand, contract and expand, as often as means were brought to bear upon its cavity, and withdrawn.

I speedily revolved in my mind cases of obstinate and profuse uterine hemorrhage, not following labor at term, and the means which I had used to arrest them. I thought of hemorrhage from fungous granulations in the cavity of the uterus, and its prompt arrest by the curette; I thought of hemorrhage following abortions, immediately or weeks after, and its prompt arrest by raking off the surface of placental attachment, with the curette or finger-nail. I thought of injections of hot water, Churchill's iodine, Monsell's solution of sub-sulphate of iron, the galvanic battery, compression of the abdominal aorta. The *pros* and *cons* of all these remedies were rapidly considered, and I determined to pass my hand for the fifth time into

the cavity of the uterus, and with my finger-nails, as a curette, rake thoroughly the placental surface.

This was done with the right hand, after all the clotted blood had been turned out, while the left hand, above the pubes, steadied the organ. As I raked, the uterus made efforts to expel my hand, but they were so feeble that with a little effort I was enabled to keep it in the cavity until I had accomplished my purpose pretty thoroughly, before it was expelled into the vagina. The hand remained there only a few seconds, before relaxation of the os allowed it to enter the uterus again, and I proceeded to give the placental surface a second thorough raking with my finger-nails, not being fully satisfied with the first manipulation of this kind.

Feeble were the efforts of the uterus that expelled my hand this time, and in a few minutes it expanded again; but notwithstanding this state of atony, my patient did not lose a teaspoonful of blood after the first raking of the placental surface.

The uterus remained enlarged and its mouth patulous for about forty-five minutes, when severe after-pains set in, producing firm contractions of the organ, and I had no further trouble in the case. The pains continued for several days, and were so severe that I was obliged to give morphia and camphor-water liberally. Her uterus and vagina were washed out daily with warm water, for eight or ten days. I never had a patient make a better recovery.

The frequent and successful use of the curette in my hands, in many cases of uterine hemorrhage where other means had failed, suggested the use of the hand as a curette in the above case; and it will be seen, from the history of this case, that, although the uterus remained relaxed and much enlarged for three-quarters of an hour after my last manipulation, there was no loss of blood from the moment I commenced the use of the manual curette.

In any future case of post-partum hemorrhage, where I can not produce prompt contractions of the uterus, or where the contractions are clonic and not tonic, I would not waste time with the usual manipulations in its cavity to excite contractions, or wait for ice or other styptic remedies. I would promptly use my hand as a curette

to the placental surface, confidently expecting prompt arrest of the hemorrhage.

The cause of clonic contractions of the uterus in this case, and the resulting hemorrhage, is not perfectly satisfactory to my mind. While the patient was in labor I never saw pains better, or more efficient. Each pain told most perceptibly on dilatation of the os, and then on expulsion of the child. There was no delay in its progress from beginning to end. The last pain shut the uterus up, and forced the complete placenta into the vagina, yet in a few minutes the uterus was greatly enlarged and pouring out torrents of blood.

Some, who are opposed to the use of chloroform in labor, may be inclined to contribute the post-partum atony of the uterus in this case to the anesthetic, yet it had no effect in diminishing the force of the pains, or retarding the progress of the labor, even to the point of expelling the placenta; and I may here add, that in a large obstetrical practice of twenty-eight years this is the second case in which I have had any troublesome post-partum hemorrhage, although the cases of labor are very rare in which I fail to give chloroform. My first and only case previous to this was in a primipara, to whom I gave no chloroform, because she and her friends were afraid of it.

The Radical Cure of Hernia.

BY HENRY O. MARCY, A. M., M. D.

[Read before the American Medical Association.]

OCTOBER 11, 1871, I read a paper before the Middlesex County Medical Society, which was afterward published in the Boston *Medical and Surgical Journal*, November 16, 1871, page 315, entitled "A New Use of Carbolyzed Catgut Ligatures." I there reported the two following cases, operated on for strangulated hernia.

CASE I. "On the 19th of last February I was called in consultation by Dr. A. P. Clarke, of Cambridge, to see Mrs. M., aged sixty, who had for years suffered from hernia. Five days previously she had been seized with severe pain in the inguinal region, accompanied with vomiting, and had been confined to her bed since that time.

"Long-continued and careful taxis had failed to reduce the hernia, and for twenty-four hours the vomiting had been stercoraceous, and the patient seemed *in extremis*. The hernial tumor was of the size of an egg, protruding from the external inguinal ring. A careful dissection exposed the sac, which was closely adherent to the surrounding parts. The constriction was in the ring, bounded below by Poupart's ligament, and above by the transversalis fascia and conjoined tendon.

"The stricture was divided in the usual way, with the hernial knife carefully introduced upon the finger. This was accomplished with some difficulty, owing to the constriction of the ring. The sac, unopened, was then pushed up with its contents into the abdominal cavity, and two stitches of medium-sized catgut ligature were taken directly through the walls of the ring. The wound was dressed antiseptically, and from Dr. Clark's notes, taken at the time, I find that the patient complained of no pain, steadily progressed without accident, and was discharged, convalescent, March 12th, three weeks after the operation.

"The wound did not close entirely by first intention, but a careful daily examination showed no trace of the ligatures, and an abundant deposition of new tissue could be felt in the line of the opening about the walls of the ring. The result was a radical cure of the hernia, and a firm, hardened deposit may still be felt marking the closure. The ligatures were first suggested to my mind, because the patient suffered severely from an asthmatic cough, and it was at least desirable to secure a temporary strengthening of the weakened ring."

She died six years after the operation, and was troubled with the cough during the entire period, but had no return of the hernia.

CASE II. "Mrs. L., aged forty-five, had been very much reduced by excessive menorrhagia, and upon March 10, 1871, my attention was called to an old, direct inguinal hernia of the left side, usually supported by a truss, which had come down the night previously and defied the patient's efforts to replace. After two attempts to reduce the hernia under ether had failed, assisted by W. W. Wellington, of Cambridge, I operated as in the first instance, dividing the constricting ring and replacing the sac and its contents unopened. Three carbolized liga-

tures were applied through the walls of the ring, and the wound was carefully dressed with carbolized lac plaster.

"As in the first case, there was complete absence of pain, the wound united without suppuration, there was an abundant deposit of new material about the ring, and when last examined in June, the cicatrix was linear, but a firm, hard deposit of new tissue could be felt marking the site of the sutures.

"On the 7th of April my attention was called to the wound by the patient, who felt a slight uneasiness, and I discovered a small swelling in the cicatrix about the size of a bean; this, upon being opened, discharged a drop or two of pale, serous looking fluid, which microscopic examination proved free from pus cells, but it contained a few shreds of connected tissue, which appeared to be minute portions of one of the ligatures. The cure is radical, and in neither case has the patient used a truss since the operation."

I then say, as far as my observation has extended, this is a new use of the carbolized catgut ligatures, and suggests a still wider field for application. No method of operation for radical cure of hernia appears more feasible, is probably attended with less danger, and at the same time affords a means of closing and strengthening the weakened ring, which is so desirable, and yet, with all the ingenious devices of surgery, is so difficult to obtain. As perhaps might have been expected, the article attracted very little attention, written by a young man fresh from his European studies and an ardent admirer of Professor Lister, whose views at the time, I believe, were not accepted by a single surgeon in the Boston district.

In these days of improved means for the reduction of hernia, by the use of ether, by aspiration, and by rest with the hips higher than the shoulders, with the ice-bag applied locally, the surgeon in private practice is called upon to operate for the relief of strangulated hernia much less frequently than formerly. As far as I remember, I have operated for strangulated hernia only four times since the publication of this paper, and these cases were treated substantially as those above given. The last case, inasmuch as it affords the opportunity of showing the result anatomically, merits a careful study, and causes me to bring the subject to your attention now.

Mrs. W., aged seventy, had been for many years an

invalid from double inguinal hernia, the right side being of such proportions that, after many endeavors to retain it by a truss, this appliance had been thrown aside as useless. On the left side was an irreducible omental hernia, at times complicated by the escape of a loop of the intestine through the ring. Nausea and vomiting had persisted for thirty-six hours before the operation.

As usual, antiseptic precautions were used, with carbolized spray and careful dressings. After slightly enlarging the ring, the intestine was easily reduced, but the omental portion, the size of a small orange, presented a number of bleeding points upon its being unraveled, and was adherent to the walls of the ring. Because of this, the whole mass was tied with catgut and removed, the ring was carefully closed with catgut sutures of a large size, No. 2, I think, five in number. The wound healed by first intention throughout. Temperature never exceeded 99° F.

The patient suffered no pain, and made a perfect recovery. She was allowed to get up in two weeks, and never wore a truss. She was so much pleased with her happy escape from danger and her complete cure that she besought the privilege of being operated upon for the radical cure of the right side. I tried again a series of trusses, but to no avail, and after careful reflection consented to perform the operation. This took place February 4, 1878. The abdominal wall was thin, the ring extremely large, and its pillars were attenuated. The sac was readily returned unopened, and sutures were used as upon the other side, perhaps eight in number. I included in my stitches as much tissue as possible, but at the close of the operation felt the less satisfactory because there was so little material to fill in and support the weakened ring.

The union was entirely by first intention, leaving, as before, a linear cicatrix which never suppurated. There was no elevation of temperature, and the patient made a rapid recovery. During the first week there was considerable swelling of the tissues about the ring; these parts were slightly tender upon pressure; and, what I believe to have been the thickened returned sac, could be felt through the attenuated relaxed abdominal walls. The patient was kept in bed three weeks; but upon being permitted to get up it could be easily seen the cure was not complete, for there was impulse on coughing and a

slight protrusion through the ring. She was fitted with a light truss, which easily retained the hernia, and was allowed to go about the house. She died suddenly, April 17, 1878, and the autopsy revealed an aneurism of the internal carotid of the right side, which had given rise to scarcely any symptom, except a gradual loss of vision of the right eye, but its existence had not been suspected.

The specimen here presented shows the walls of the ring much thicker than before the operation, and its caliber diminished perhaps two thirds. A light truss would probably have been sufficient easily to hold the parts in their proper relations.

The use of animal ligatures in surgery is by no means new. In all probability catgut, the form of animal thread or ligature which has been most frequently used in modern times, was employed as surgical sutures eight or nine hundred years ago. The celebrated Arabic writer, Rhazes, who practiced in Bagdad about A. D. 900, speaks of stitching up wounds of the abdomen with a thread made of the string of a lute or harp; and another Arabic author, Albucasis, who lived a century or two later, alludes in the same class of injuries to stitching a wounded bowel with a fine thread made of the twisted intestine of an animal. The strings of the ancient Egyptian harp, and hence probably of the Arabic, were made of catgut. Homer, in the *Odyssey*, speaks of the strings of the old Greek harp as made of the twisted intestine of the sheep.

Catgut was suggested as a proper substance for sutures and ligatures by the learned Dr. Thomas Young, of Edinburgh. See his *Introduction to Medical Literatures*, 1813, p. 448, where he says, "I have often wished to try ligatures made of catgut which might be absorbed." In the *Edinburgh Medical and Surgical Journal* for 1818, Vol. XV. p. 155, he states that he had proposed catgut ligatures to several surgical friends ten years previously, or in 1808.

To Dr. Physick, of Philadelphia, is undoubtedly due the honor of having first introduced animal ligatures into surgical practice. His ligatures were made of chamois leather. Silk may be considered an animal product, but however used, even when carbolized and inclosed in a wound which readily heals by first intention, the softened fibers usually act as an irritant, and are later discharged by the processes of suppuration. Animal tissues made

but indifferent ligatures; and were practically long since abandoned. They were soft, slippery upon being immersed in water, and were by no means strong.

To Professor Joseph Lister we are indebted for a most important modification of the catgut ligature. In his enthusiastic devotion to his new ideas of the possible repair of tissue, he had observed that, under antiseptic dressings, clots of blood and large pieces of dead skin and other tissues had disappeared without suppuration; therefore he inferred that small pieces of animal texture, if applied antiseptically, would be similarly disposed of. To make catgut antiseptic, he immersed it, as prepared for the violin, into a strong watery solution of carbolic acid, and noticing the changes which followed in its texture, after considerable variety of experiments, he gave us the ligatures as at present used. They are prepared by immersion of the gut in a mixture of five parts of fixed oil, olive or linseed, to one part of the crystallized acid, liquefied by the addition of five per cent. of water. After a few weeks' suspension in this fluid, the catgut becomes translucent, firm, hard, but moderately pliable, makes a strong knot, and upon immersion in water, or the fluids of the body, it undergoes no immediate change, and for days together the knots retain a firm hold.

There is considerable difference in the catgut thus prepared. That which I have used I obtained eight years ago from Professor Lister's own manufacturer, and I think it improves by age. It is certainly quite different in appearance from that supplied by Codman & Shurtleff, of Boston. The latter is less firm, has a paler color, and is much more pliable. This may possibly explain one source of dissatisfaction on the part of some surgeons who have used the ligatures thus prepared. To show the importance of the proper preparation of the ligature, I quote from Professor Lister's original paper, published in the *Lancet*, April, 1869: "But for the sake of surgeons who may wish to prepare it for themselves, it is necessary to mention, in order to avoid disappointment, that the *essence* of the process is the *action* of an *emulsion* of *water and oil* upon the *animal tissue*. The same effect is produced upon the gut, though more slowly, by an emulsion formed by shaking up simple olive oil and water, as by one which contains carbolic acid.

"On the other hand, an oily solution of carbolic acid

without water has no effect upon the gut beyond making it antiseptic, and if water be added only in the small proportion which the acid enables the oil to dissolve, though the gut is rendered supple, and acquires a dark tint from the coloring matter of the oil, it will be found, even after steeping for months in such a solution, that when transferred to water it swells up and becomes soft, opaque and slippery, as if it had not been subjected to any preparation. How it is that an emulsion produces this remarkable change in the molecular constitution of the tissue I do not profess to understand. I was at first inclined to regard it as a closer aggregation of the particles, brought about by a kind of slow dying of the moistened gut in the oil, as the watery particles precipitate to the bottom of the vessel; but, not to mention other circumstances opposed to this view, the oil remains turbid for a very long time, the finer particles of water being extremely slow in precipitating, and if, after the lapse of weeks, a piece of dry, unprepared gut is suspended in it, the thread is soon rendered soft and opaque by the very liquid in which gut which has been longer immersed is growing constantly firmer and more transparent.

"It is necessary that the gut be kept suspended so as not to touch the bottom of the vessel, for any parts dipping into the layer of precipitated water would fail to undergo the change desired.

"The vessel containing the emulsion should be kept undisturbed, for if the water is shaken up with the oil the process is retarded. An elevated temperature, of about 100° F., seems for a while to promote the change, but ultimately leaves the gut in an unsatisfactory state compared with that obtained at an ordinary temperature; and conversely, some portions of gut which I have prepared in a room without a fire, in cold weather, at a temperature of about 46°, were in one week already in a trustworthy condition for surgical purposes. Hence, the gut should be prepared in as cool a place as possible. The longer it is kept in emulsion the better the gut becomes. I once feared that in time it might grow too rigid for convenience, and possibly brittle also; but experience shows that this is not the case.

"When removed from the emulsion it soon dries in the air, but retains a considerable portion of its carbolic acid for several hours, so that no apprehension need be enter-

tained of loss of its antiseptic property from exposure during the performance of an operation. In course of time it loses all the carbolic acid also, but retains permanently its altered molecular condition. If thus kept dry, as may prove the most convenient for the manufacturer on a large scale, it must be steeped thoroughly in some antiseptic lotion before its use. And for the surgeon the most convenient way will probably be to keep it always in the antiseptic emulsion, so as to be ready for use whenever it is required."

Dr. D. W. Cheever, of Boston, writes me under date of May 14, 1878: "I tried catgut for a radical cure of hernia, but it was speedily absorbed and failed." He is unable to give me particulars with regard to the use of the ligatures.

Dr. J. C. Warren wrote me a few days since: "I should fear that they would not hold long enough to keep the parts in apposition until union becomes firm. We have given up their use at the Massachusetts General Hospital for this reason: they do not hold longer than four days."

In the *Toledo Medical and Surgical Journal*, for May, 1878, I find an editorial review of an article published by Prof. E. W. Jenks, of Detroit, "Upon Sutures of the Uterus in the Cæsarean Operation," in which the reviewer states that he changed his opinion concerning catgut ligatures, and condemns their use. Theoretically, he says, catgut is the best material because of its innocuity and of its ready absorption, but practically he believes it the worst of any, as no one has yet devised a knot which the heat and moisture of the peritoneal cavity will not cause to relax, and it is then rendered useless. He has employed catgut to ligate intra-peritoneal vessels in an ovariectomy where post-mortem examination revealed not only that the knot was untied, but that it was less innocuous than silk used at the same time. He also quotes from the Transactions of the Obstetrical Society of London, in which Drs. Routh, Meadows, and others, give opinions unfavorable to the use of catgut for uterine sutures. Dr. Meadows mentions two cases of death after Cæsarean section, attributable solely to the use of catgut for closing the uterine rent. Among authoritative works on this subject, I am glad to be able to include this recent publication from such a careful, conscientious observer, for it accords in certain respects with studies of my own. I believe there are distinct limits to

the usefulness of the catgut ligature, and if our profession early learns to know what these limits are, not only may the lives of our patients be less endangered, but an aid to surgery which now promises much of good will be rescued from wholesale condemnation and oblivion. In plastic operations, especially of mucous tissues, I would never think of using catgut ligatures.

In wounds exposed to the air, or liable to suppuration, where the ligatures are soaked in fluid secretions, I am well aware the catgut knot is liable to become loose; but in the antiseptic ligation of vessels, or the closure of deep-seated tissues, it is far superior to any other. Here, when properly applied, it is open to few of the objections made. Owing to the firm character of the material, circulation of the inclosed part is more liable to be impeded than with silk ligatures, and hence care should be exercised; but within the limits here assigned, an experience of eight years justifies their use.

In the *Boston Medical and Surgical Journal* of May 8, 1879, in the report of surgical cases of Dr. George W. Gay, there is given at length the history of a case of popliteal aneurism relieved by ligation of the femoral arteries with catgut ligature. "The wound closed by first intention and the ligature was never seen after the operation." In commenting upon the case the writer states, "The happy result following the use of the catgut ligature is worthy of notice. It is hardly possible to get a wound with ligatures hanging from it, to unite by first intention. In many operations primary union would be obtained were it not for the silk with which the vessels are secured. Torsion in these cases is tedious and uncertain. But good catgut carefully tied by three square knots, and the ends cut short, allows the wound to be closed throughout its whole extent. This material has been in use over two years in the City Hospital, and thus far it has always been satisfactory."

I have repeatedly ligated arteries with catgut with like result. For a large gluteal aneurism, I placed a double catgut ligature upon the vessel not far from its origin. The patient was a muscular sailor, the wound large and deep; the pyriformis muscle was divided in order to bring the vessel into view. The treatment was antiseptic, the temperature remained normal and union was by

tention throughout, and no trace of the ligature ever seen. The patient has resumed his vocation.

Judging from my own observation I am inclined to believe the ligature properly, that is antiseptically, used is not absorbed at all, but is changed particle by particle, being in this way not revitalized, but replaced by living tissue, thus producing a reinforced band of new connective tissue in place of the ligature itself.

The specimens here shown I think demonstrate this. The one last operated on, February 5, death taking place April 17, namely, sixty-eight days after the operation, shows unmistakable thickening of the connective tissue about the ring; and there are yet seen, although preserved in a bichromate potassa solution, hence less distinctly than at the autopsy, traces of the ligature. These are of a darker color than the surrounding parts, retain imperfectly the shape of the ligature, and are of considerably greater density and firmness. Under the microscope they show only wavy bundles of connective tissue. In the older specimen operated on December 2, after the lapse of four or five months, you can no longer trace constricting fibres in the shape of circumscribed bands, but you will find a firm reinforcement of the parts by connective tissue, which certainly includes the walls of the ring, and hence we infer it is developed about, or transformed from the ligatures themselves. This quite accords with Mr. Lister's experiments in the ligature of arteries.

From the article previously mentioned I quote as follows: "Thirty days after the operation, the animal, a calf, which had continued in perfect health, was killed, and the parts removed for examination. On dissection I was struck with the entire absence of inflammatory thickening in the vicinity of the vessels, the cellular tissue being of perfectly normal softness and laxity. On exposing the artery itself, however, I was at first much surprised to see the ligatures still there, to all appearance as large as ever. But from my other experiments, it might have been anticipated that the ligatures of peritoneum and catgut placed on the calf's carotid would, after the expiration of a month, be und transformed into bands of living tissue. Such is in truth the case, as was apparent on closer examina-

Fleming published, in 1876, in the *Lancet*, a series

of observations upon the "behavior of carbolized catgut inserted among the living tissues," and gives his results confirmatory of such change. "A softening takes place from without, in the catgut breaking down and becoming infiltrated with cells. The mass into which it has been converted begins to metamorphose and is soon permeated with blood channels, and ultimately may be described as a cast of the catgut in a kind of granulation tissue, freely supplied with blood-vessels, which in many of my sections are easily injected." These views should not seem exceptional, when we remember many well known facts, for example, that the revivifying of skin dead at least by separation for a considerable period, as in that from an amputated limb, goes on so uniformly that transplantation of it upon granulating surfaces, and these not best fitted for its growth, has now become a daily practice in surgery.

Even the epithelial cells removed by a considerable distance from the circulation, and already dead, thus live again, and multiply so rapidly as to be of practical use in the repair of large denuded surfaces. The periosteum, as Ollier and others have shown in their experiments, may be also transplanted, and not only live, but become an active factor in the reproduction of bone; and teeth have been removed, filled, and replaced, actually transplanted to other locations, and regained their lost relationship of nutrition.

The spurs of the cock, as observed by Baronius, when transplanted to the comb, not only live, but remarkably increase in size, and when ingrafted into the ears of oxen, as is practiced in Mexico, they attain a size truly wonderful.

Mantegazza described and figured one of these spurs, which in its dry state weighed nearly one pound (396 grammes), was twenty-four centimeters in height, and twenty centimeters in width.

If such wonderful activity of reproduction and growth are shown by these tissues, there would appear to be no reason why the cells of the fibrous tissues might not also undergo changes in nutrition equally remarkable, of which practical advantage may be taken. Dr. Hodgen, of St. Louis, in his valuable address on surgery, delivered before the International Medical Congress at Philadelphia, 1876, says that the late Prof. Paul F. Eve, of Nashville, Tenn., informed him that for forty years he had been in the habit

of using the sinews of the deer for ligating vessels. "I have never used carbolized spray. The tendons of the deer, dried and torn into shreds and rolled into ligatures, are what I employ. They are absorbed; I have accordingly used them as sutures." Prof. Lister, in his address on Antiseptic Surgery, Transactions International Medical Congress, 1876, page 538, says: "I have been making strenuous efforts to improve the catgut ligature, and believe that I have at last obtained the desired result. Old ligature is far preferable to new, and yet the knots will sometimes loosen. I have seen a case of Cæsarean section progress admirably until the stitches in the uterus gave way, and then death speedily followed. The old ligature is harder, and does not absorb as readily as the new, but I have found that gut which is reliable when tested with warm water will yet loosen under the action of the liquor sanguinis. The ligature must not be made too hard, or it will be too stiff for tying, and will even act as a foreign body as much as silk does, and yet it must be so hard that after soaking in serum for weeks it will still hold firmly. I have tried many substances; chromic acid will harden the gut, but when the latter is soaked in serum it is as unsatisfactory as before; glycerine gives a ligature which will knot well, but is still too hard. I have at last made a mixture of carbolic acid, glycerine, chromic acid, spirit of wine and water, which I think will prove the very thing required. The ligature which I show has been soaked a month in serum, and yet the knots are perfectly firm."

This is not the place, nor have we the time for a careful review of the history of the various devices suggested for the radical cure of hernia. For centuries this has been a prolific field for charlatans and for quacks of every description. Hernia-curers roamed over Europe a century ago, practicing castration and various reckless and dangerous devices, at the cost of many lives, and, it is needless to say, with the performance of few cures.

Within the present century many of the best surgeons have given this subject careful study, and some of the most ingenious of surgical devices have been brought into requisition. Nearly all of them have sought to accomplish a cure by one of two ways: either by producing adhesive inflammation and obliteration of the sac, or by producing closure of the ring. Monsieur Bennet inclosed the cord between pins fastened to rolls of linen. Gerdy

plugged the ring with invaginated skin held by stitches, and afterward, with the object of correcting the tendency of the invaginated skin to be withdrawn, cut it free, and ended with a plastic operation, by raising a flap from below. This method was often successful in his hands, but its complication and dangers prevented its general adoption.

Belmas invented an instrument, consisting of a canula with stylets. Through the passage in the canula threads of gelatine were to be introduced, and be ultimately absorbed, after having produced the requisite adhesive inflammation. Then he applied a truss.

The operations of Velpeau, Wutzer and Wood are better known. Mr. Wood operated about two hundred times, with the result of three deaths and about seventy-five per cent. of reported cures. Acupuncture, a revival of the punctum aureum of the ancients, as practiced by Dr. Pancoast, of Philadelphia, though unsuccessful as a means of cure, suggested to him, as well as to Dr. Young, of Tennessee, the use of subcutaneous injections of iodine or cantharides into the sac. A number of successful cases thus operated upon are reported.

This method was practiced for many years as a secret cure by Dr. Heaton, of Boston, with reported success. Recently he has published a monograph upon hernia, in which he gives a detailed account of his treatment and experience. He reports a large number of cures, and claims that his method is devoid of danger. It consists of a fluid extract of white oak bark injected with a hypodermic syringe into the sac. This method has been tried with moderately successful results at the Boston City Hospital. By means of it, a considerable amount of thickening and narrowing of the ring is certainly produced.

In 1858 Dr. Gross, in two cases, cut down upon the ring and brought together its walls with silver sutures. A cure followed in both cases. In 1871 Dr. Van Best reported three cases operated on for radical cure by a subcutaneous sewing of the ring with salmon gut. Two of these cases were successful.

Dr. G. Dowell, Professor of Surgery in Texas Medical College, published a treatise on hernia in 1877, and describes a new method for its radical cure. He there reports sixty-eight cases with sixty permanent cures, and at the date of publication, he informs me the number of his

operations exceeds one hundred. By a needle of peculiar construction he subcutaneously sews the pillars of the ring with silver wire. The testimony of such an indefatigable student, with his very large experience and remarkable results, is of the greatest value.

Mr. Charles Steele, of Bristol, reported in the *British Medical Journal*, November 7, 1874, a successful case of radical cure of hernia, which was operated on precisely as were my own cases. The patient was a boy of eight. The surgeon used two stitches of catgut antiseptically, and union followed by first intention. After six months the hernia returned, and the operation was repeated. A truss was applied for safety. A perfect cure was effected, in the judgment of the operator, a year later.

Nearly all the late writers on surgery, such as Bryant and Erichsen, deprecate any attempt to secure the radical cure of hernia, except in severe cases; and Mr. Bryant regards the supposed elongation of the mesenteric ligament as a probable cause of the imperfect results obtained by various operators, but he supports his proposition neither by theory nor by fact. If the operation which I have proposed is done properly, with antiseptic care, I believe that to a great extent it is devoid of danger. In a series of papers upon strangulated hernia, based upon one hundred operations performed by himself, published in the *British Medical Journal*, for 1872, Sir James Paget, in advocating the replacing of the sac unopened if possible, says: "The structures divided externally to the sac are insignificant; and it might be difficult to name an operation less endangering either life or health than this would be. The peritoneum is not wounded; the intestine or omentum is not touched or exposed to the air; the wound may be small; any hemorrhage may be easily stayed and must be all external. Thus the wound is favorable to speedy healing, and erysipelas or any other mischief is not likely to extend to the peritoneum."

I would not appear over-sanguine in the suggestion of any new method for the radical cure of hernia. I am perfectly aware that this has ever been one of the most troublesome and unsatisfactory problems in surgery; and my experience has been too limited to prove little except possibilities.

However, I must claim a favorable consideration, on a legitimate field, for the use of the carbolized catgut liga-

ture, at least in all cases of strangulated hernia where the wound can be closed. This method does not add to the dangers of the operation, and is probably followed by a cure. In comparing the operation with that usually recommended, of subcutaneously stitching the ring with sutures of any material, it seems apparent that to cut down upon and expose the ring gives a much better opportunity of carefully closing it, refreshing its borders, and thus avoids injury to the spermatic cord, while it does not increase the danger of the patient.

If these views are unsound, let their publication provoke criticism, and lead to such investigation as shall expose their futility. But if they are correct the testimony of other observers will confirm them, and enable the divine art of healing to take one more step in the direction of progress.

SELECTIONS.

A Few Remarks on Animal Temperature.

A REPORT FROM THE SUFFOLK DISTRICT TO THE MASSACHUSETTS MEDICAL SOCIETY FOR THE YEAR 1879.

BY FREDERICK C. SHATTUCK, M. D., REPORTER.

SINCE 1851, when Wunderlich, inspired by Traube, began to make systematic observations with the thermometer in disease, less than thirty years have elapsed; and yet so rapid is the interchange of thought in these modern days, it can safely be said that there is no single instrument of precision designed to aid our imperfect senses which is to-day so indispensable to the physician as the clinical thermometer. The labor which has been expended on the field, is immense, as is the return which has been obtained in the shape of increased accuracy in diagnosis, prognosis, and treatment. Wunderlich spent sixteen long years in collecting careful observations before he ventured to publish his well-known work on medical thermometry, and many of his conclusions will, no doubt, stand the test of time. Yet so wonderfully complex are all biological problems that we must always be prepared to find what we have, perhaps for years, regarded as the goal itself turn out to be but a milestone on the road to truth. Let

me illustrate my meaning by bringing forward two points in human thermometry which we regarded as nearly fixed, but which recent observation and experiment show must be moved much further apart than was thought possible. I refer to the minimum and maximum animal temperature which, in mammals, is consistent with the continuance of life.

In the Sydenham Society's translation of Wunderlich (1871), temperatures below 92.3° Fahr. are said to indicate "deep, fatal algid collapse." In the third edition of Dalton's Physiology (1864), it is stated that "mammalians die if their blood be cooled down below 94° or 95° Fahr." In the sixth edition of the same work (1875), the thermometer falls thirty degrees, and we learn that "mammalians become insensible and soon die when cooled down to 64° to 68° Fahr." In 1870 and 1871 Horvath published the result of his experiments on rabbits and young dogs, which he cooled down by snow, while thermometric observations were taken in the rectum. He succeeded in cooling the dogs down to 40° Fahr., and subsequently restoring them perfectly, as far as could be seen, by the application of warm water. In 1869 Lortet made two ascensions of Mont Blanc, taking careful thermometric observations under the tongue. He found that his temperature during rest varied only a few tenths of a degree at any altitude, but that during exercises, and especially when some time had elapsed since taking food, his temperature decreased progressively as his altitude above the sea increased. On arrival at the summit the thermometer registered 89.6° and 89.24° , but after half an hour's rest it rose again to upward of 97° . Marcet also made observations on himself in ascending Swiss mountains, and arrived at the same general conclusions as Lortet, the accuracy of whose *observations* can not be doubted, though they do not agree with those of many others who made similar experiments. Of these latter I will select Clifford Allbutt who found that altitude had no effect, and exercise an elevating rather than depressing effect on his temperature, with only one or two exceptions. His observations covered a number of days, and though the weather did not permit him to reach the summit of Mont Blanc (15,780 feet), he once attained 12,000 feet, and 9,000 feet a number of times. Carpenter thinks that the different results of Lortet and Allbutt are due to the different physiques of the observers,

and if this view be correct it affords a new and striking example of the large allowance which must oftentimes be made for individual peculiarity, whether in health or disease. In 1874 I saw in Berlin, a man in Traube's ward, brought into hospital insensible after prolonged exposure to a temperature of about 32° Fahr. and the ingestion of an enormous quantity of alcoholic drink. His temperature on admission was 76° , but he recovered within a few days, and this is the lowest human temperature, with subsequent recovery, with which I am acquainted. In asthma and morbus cæruleus a temperature as low as 78° has been noted.

A few words now as to maximum temperatures. Wunderlich tells us that temperatures above 107.6° "indicate in all probability a fatal termination in every known disease except relapsing fever." In Dalton's sixth edition (1875), we read "Mammalians die when the blood is heated up to 45° (113° Fahr.), precisely the normal temperature of birds." In that same year the medical world was startled by a case of injury to the spine, reported by Mr. J. W. Teale, in which, during a period of seven weeks, the recorded temperature never once fell below 108° , during one week ranged between 114° and 118° , on one day reached the extraordinary height of 122° , and yet recovery took place. I am aware that this case has not obtained universal credence, but in view of the high character and thorough competence of the observers, the pains which were taken to eliminate sources of error, and the publication since then of a number of cases of recovery after temperatures which widely overstepped what, until within a very few years, was believed to be the "dead line," I do not hesitate to avow that the probabilities are, in my opinion, very strongly in favor of the accuracy of Mr. Teale's observations. The *a priori* arguments against it are obvious, but we in this neighborhood have had at least two striking examples of the fallibility of *a priori* reasoning in the triumph of anæsthesia, and the years which Phineas Gage lived after a crowbar had traversed his brain.

Cases are also reported of recovery in sunstroke after recorded temperature of 109.2° and 113° ; in cerebral rheumatism, 110° ; in convalescence after measles, 107° ; in the commencement of typhoid 108.20 ; in convalescence after typhoid, two cases, 111° ; and two cases in which no precise diagnosis could be made, 108° and 115.8° ; and

my search of the literature of the last few years has been far from exhaustive.

There is one other point brought up by the consideration of some of these cases which is of fresh interest, and of which we shall, I suspect, hear more. In four of them the high temperatures were often very evanescent, the thermometer falling from a very high to nearly the normal point within half an hour, or even less. All four cases were women, and more or less hysterical—so, indeed, was Teale's case—putting us on our guard against deception. It is not my intention here to enter into a discussion as to whether deception was practiced or not. The point is ably discussed by Dr. Donkin, whose article is readily accessible; and I will simply state that the internal evidence and his reasoning convince me that the readings were not due to deception, and experiments on myself lead me to agree with him in disputing the statement of Sallerbeck, that it is easy to raise the mercury to 108° in three minutes by rapidly rotating the bulb between the bare skin of the arm and the thorax. I will also take this opportunity of putting on record a case of high evanescent temperature which has occurred in my own practice. A year ago I had under my charge a boy twelve years old with typhoid fever, in whom occasional flushes of heat were noted by the attendant, a man of far more than common trustworthiness. The flushes never occurred at the time of my visits, and my attention had not then been specially called to these transitory hyperpyrexias. The eleventh day after the boy took to his bed I recorded, myself, the morning and evening (ten P. M.) temperature as 103° and 102.2° , but about four o'clock in the afternoon the attendant noticed that the patient was in one of these flushes, and, taking the temperature, found it to be 109.6° . Thinking that he must have made a mistake, he tried again, but obtained the same result. He is quite sure that the flush did not last above half an hour, but the thermometer was unfortunately not used again till my visit in the evening. After this I had the temperature taken every two hours, but the flushes did not seem to recur, though three days later 107.24° was recorded at eight P. M., and two hours later 100.76° . The boy died at the end of the third week; the autopsy confirmed the diagnosis of typhoid, and I have no doubt whatever that the observations were correct. The boy was too dull and

typhoidal to allow me to entertain the idea of any deception on his part.

Briefly stating conclusions, I have endeavored to show, (1) that the range of animal temperature, which is not incompatible with human life, is much larger than has, until very lately, been supposed, extending in all probability, at least from 76° to 122° , or forty-six degrees; and (2) that very remarkable and sudden oscillations of temperature, covering many degrees, sometimes occur, which can not at present be satisfactorily explained.

Conclusions from the Study of One Hundred and Twenty-five Cases of Writer's Cramp and Allied Affections.

BY GEORGE M. BEARD, M. D., NEW YORK.

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DURING the past few years I have been specially investigating the disease known as *writer's cramp* and affections allied to it, as *telegrapher's cramp*, *musician's cramp*, and the *cramp of sewing women*, and others engaged in occupations that draw so severely and exclusively on certain muscles as to induce weakness of those muscles and of the nerves that supply them.

These investigations have been pursued in various ways — by the study of cases in my practice; by conversation and correspondence with physicians from all parts of the country and other countries; by consultation with physicians in regard to cases, and by circulars of inquiry that have been noticed in various journals and brought to the attention both of physicians and the sufferers of the disease. The inquiry has extended to England, Germany, and Australia.

The conclusions at which I have arrived, stated in the most condensed manner possible, are as follows. I present the results without argument or discussion, reserving the details for a subsequent occasion, and shall here confine myself to those facts that are more or less novel and unfamiliar, and of the greatest scientific and practical interest.

The main results can be stated in these eight propositions:

First.—What is called the cramp is but one of a large number of the symptoms of this disease, and no two cases are precisely alike.

There are at least fifteen or twenty other symptoms of this disease. The recognition of these symptoms, especially in the early and premonitory stage, is of the highest moment, for the reason that in the early stage the disease is curable.

The cramp in those cases, where it appears, is oftentimes one of the latter symptoms, and bears much the same relation to the disease that the symptoms of the ataxia gait bears to the disease locomotor ataxy. *In some cases there is no cramp from first to last, and in all cases the cramp is preceded or accompanied by other symptoms.*

The list of symptoms of writer's cramp is as follows:

- 1, *Fatigue, exhaustion* ; 2, *dull, aching pain* ; 3, *nervous, irritable feeling* ; *general nervousness* ; 4, *trembling, unsteadiness* ; 5, *cramp, spasm, jumping, twitching, rigidity, contraction of muscles* (in some cases the pen is involuntarily hurled at a great distance, as across the room) ; 6, *stiffness and tightness* ; 7, *powerlessness, helplessness* ; 8, *numbness, areas of anæsthesia, tingling* ; 9, *neuralgia* ; 10, *burning, stinging, dancing, prickly feeling* ; 11, *soreness* ; 12, *throbbing and swelling feeling* ; 13, *thrilling, running, electric sensations* ; 14, *tightly-bound feeling of wrist* ; 15, *coldness* ; 16, *abnormal sensitiveness to touch or cold, or mental influences* ; 17, *disinclination to write* ; 18, *slowness in writing* ; 19, *itching* ; 20, *perspiration* ; 21, *temporary aphasia* ; 22, *dryness of the joints* ; 23, *swelling of the wrist and hand* ; 24, *actual paralysis* ; 25, *abnormal grasp of the fingers on the pen-holder or pencil*—a very common symptom ; tendency of the fingers, especially the middle one, to slip out of their places on the pen-holder, creating a desire by the sufferer to moisten them to prevent slipping ; bearing down on the paper with unnatural or unusual pressure.

Many of the above symptoms are not confined to the hand, but extend to the forearm, arm, shoulder, neck, to the opposite arm, and over the whole body. It is clear, therefore, that the term writer's cramp is the worst possible misnomer, and that the disease has been most imperfectly understood in medical literature. It is wise, however, to retain the term both in scientific and popular circles, for in the prospective state of our knowledge no term

capable of including precisely and exhaustively all the phenomena of the disease can be suggested. When any disease is designated by a term that is at once short, familiar, and easily retained, it is not well, as a rule, to attempt to displace it. To name diseases from prominent and special symptoms, and real or suspected factors in their causation is, during certain stages of medical progress, both natural and inevitable, as is illustrated by hay-fever, epilepsy, hysteria, insanity, neuralgia; and to attempt to substitute terms based on imperfect and changing knowledge of pathology, is to heighten the confusion that we would remove.

Secondly.—Also in the other forms of professional cramp, as that of telegraphers, musicians (violinists, organists, pianists, harpists), sewing-women, painters, artists, dancers, hammer-palsy, and so forth, the cramp is but one of a number of symptoms and by no means always the most important symptom; and, as in writer's cramp, there is frequently no cramp at all, from the beginning to the end of the disease.

There is no *one* symptom of the disease that can be said to be diagnostic. It is by taking a survey of *all* these symptoms, and by studying them in their relation to each other and to the history of the case that we are able to make out the diagnosis of writer's cramp, or of any of these allied disorders. The rule applies to the entire nervous system; there is not a disease known to neurology that can always be diagnosticated by any single symptom; all the familiar disorders of the brain, of the spinal cord, or of the peripheral nerves are studied, not through isolated phenomena, but through groups of phenomena, acting and reacting on each other; pathognomonic symptoms belong to lecture-rooms and text-books, not to practical experience.* An analogous disease, that has not been described, is the *counting-money cramp*, from which a lady-clerk in the Treasury Department at Washington

* Ataxy, for example, was formerly diagnosticated by inability to stand with closed eyes, by the ataxic gait, and by the electric pains; and more recently an unsuccessful attempt has been made to prove that the absence of the tendon-reflex is a sure sign of that disease. There was no need of experiment to disprove this claim; the physiology and pathology of the nervous system are now in a condition, where we are able to prove deductively—without examination—that all such claims of pathognomonic symptoms, however reliable they may be as aids and accessories, are illogical and unscientific.

once suffered: it is caused by excessive and restricted use of the fingers in handling bills.

Thirdly.—*This disease is primarily a peripheral and local disease of the nerves and muscles; secondarily and rarely it becomes central and general, or it may result from various central lesions; and it may affect any point between the extreme periphery and the center.*

This view of the pathology is a compromise between the old view that it was central, and the theory of Poore, of London, that it is purely peripheral.

No two cases are precisely alike in their pathology, but there is no question that in some exceptional cases the disease extends to the centers. That it affects the left hand as well as the right is no proof that the disease is central; it simply develops to the left hand when that hand is used, for the same reason that it affects the right hand.

The theory that writer's cramp is a result of lesion or disturbance of special co-ordinating centers in the brain is not sustained by a single properly understood fact; on every point it fails to account for and harmonize the phenomena. So far, my own conclusions are in entire accord with those of Dr. Poore, of London, who has investigated this subject most intelligently and successfully.*

In truth, the detailed pathology of writer's cramp is not simple, but complex; in some cases there is neuritis which may affect a single nerve-branch or several nerve-branches, and may be restricted to the fingers and hand, or extend up the forearm and arm; then the muscles may be merely exhausted—chronically fatigued—or with a tendency to spasm and contracture. The worst phase of the disease that I ever saw was in 1874, with Dr. Brodie, of Detroit; in that case the arm was drawn over to the back, and held firmly there by the contracted muscles; the patient was unable to use his hand for any purpose, and also suffered great pain.

In some cases the disease, or rather the tendency to the disease, is hereditary—two and three cases having been known in a single family.

Fourthly.—*This disease occurs mostly in those who are of strong, frequently of very strong, constitutions, and is quite rare in the nervous and delicate; and when it does*

* Transactions of the London Medico-Chirurgical Society, vol. lxi.

occur in those who are nervous, is easier relieved and cured than when it occurs in the strong.

This fact is not peculiar to writer's cramp, but applies to other nervous diseases, as impotence, muscular atrophy, and ataxy. I see every day cases of nervous exhaustion (neurasthenia) in its various forms, and quite rarely do I see writer's cramp in them; and when they do have this disease, it is mild and curable. I have successfully treated a number of these cases.

Fifthly.—This disease is far less likely to occur in those who do original work, as authors, journalists, composers, than in those who do routine work, as clerks, book-keepers, copyists, agents and so forth.

The reason is clear. Original thinkers must take time for thinking as they write, and thus they rest the nerves and muscles of the hand; while routinists, having little or no thinking to do, write on constantly and uninterruptedly, oftentimes at the extreme of their speed.

In some cases an attack of writer's cramp has followed a *single* task of long copying. In one of my cases—an authoress—there had never been any sign of the disease until she performed a task of routine work. Of my cases eight were physicians, eight were lawyers, five were clergymen, and the remainder were clerks, book-keepers, agents, copyists, and merchants.

Men who write bad, scrawly, illegible hands never have writer's cramp; it is the penalty for writing plainly and carefully. Like prevents like, and those who always write as though they had writer's cramp never have it.

Sixthly.—This disease, like all nervous diseases in this country, diminishes in frequency as we go South.

In the Gulf States writer's cramp and maladies allied to it are very rare. The same is true of hay-fever, which is a type of nervous diseases; and, indeed, of the whole family of functional nervous maladies, such as sick-headache and neurasthenia, or nervous exhaustion in all its manifestations.

In investigating this subject I have corresponded and conferred with physicians all through the South. Dr. Bryce, Superintendent of the Alabama Insane Asylum, Tuscaloosa, whose opportunities for observation have been very large, has written me a very interesting letter on this question.

Seventhly.—*Writer's cramp is no longer an incurable disease.*

In the early and forming stage, especially, it responds to treatment quickly, and in many cases permanently. During the stage of exhaustion, fatigue, and pain, with the other symptoms of numbness, neuralgia, irritability, trembling, powerlessness, soreness, coldness, stiffness, and so forth, this disease can be treated as satisfactorily as almost any other form of nervous disorder; and, even when cramp or spasms of the muscles have appeared, it may be entirely cured.

In the latter stages, after the symptoms have existed for years, the malady may become absolutely hopeless, even though the patient abandon his occupation. I have seen cases that have been afflicted for over a quarter of a century.

One striking case of this kind I had opportunity to see through to courtesy of Dr. W. C. Wey, of Elmira, N. Y. Both hands were affected, and the numbness and powerlessness were so marked that sometimes a newspaper that he was reading would drop to the floor. The whole body seemed, indeed, to have been disturbed, and he had been obliged to give up his position as cashier of a bank.

In all these cases, the prognosis is better in nervous and delicate patients than in those who are phlegmatic and strong.

Eighthly and lastly.—*The treatment of writer's cramp and affections allied to it consists:*

1. In the use of electricity locally implied. Both galvanic and faradic currents may be used—preferably the former. In some cases galvanization of the spine and neck, and what are called spinal-cord nerve-currents, are indicated. Strong galvanic currents, with metallic electrodes, I have used with advantage in some cases where mild currents seemed to do no good. The wire brush with the faradic current I often use, and in some cases electro-puncture.

The relief of pain and fatigue that follows these electrical applications is immediate and uniform, and most grateful to the sufferer; and this temporary effect can be obtained even in the worst cases. I have not yet been able to demonstrate any very marked advantage from the rhythmical movements of the muscles in connection with the electrical applications.

2. Hypodermic injections of atropine, strychnia, du-boisia, Fowler's solution, and other tonics, narcotics, and sedatives. These remedies need often to be gradually pushed to their physiological effects. Electricity and hypodermic injections combined have made an epoch in the treatment of writer's cramp. The evil effects of hypodermic injection are guarded against by care in preparing the solutions, by dilution of irritating substances, by moderately deep puncture, and by substituting other treatment in those cases where, from any constitutional tendency, suppuration is easily excited.

3. The internal use of calabar-bean, ergotine, iodoform, and in some cases of nerve-food, as oil and fats. It is useless, in the majority of severe cases, to dally with mild remedies or ordinary tonics.

4. *Massage*, or systematized kneading and manipulation of the muscles, with friction, and pinching, and pounding of the skin, and passive movements of the joints, large and small.

Dr. Douglass Graham, of Boston, has used this method with very encouraging success. I now employ it in all my cases. The whole arm should be treated.

5. The use of dry heat and dry cold, by rubber bags containing hot water or ice. These may be used alternately.

6. The actual cautery and very small blisters to the upper portion of the spine, or along the course of the affected nerves and muscles.

Rest alone, even long abstinence for many months from writing, will not cure writer's cramp, as has been proved by the experience of many cases. The best results I have ever had have been made with cases that kept right along with their occupation—although avoiding excessive work—with the aid of mechanical appliances.

Among the hygienic devices for the relief and cure of writer's cramp are the following:

1. The device for holding the pen—a ring-pen-holder—so as to relieve the thumb and fingers. An excellent arrangement of this kind has been perfected by one of my patients. By this contrivance the thumb is allowed perfect rest, and the index-finger and second finger are united by rings so as to make practically one finger, which is attached to the pen-holder. The over-use of the muscles most liable to be involved in writer's cramp is thus

avoided. The gentleman who perfected this *ring-pen-holder* was himself substantially cured of a bad form of writer's cramp by its use in connection with electrical and other treatment, as above described. He is a book-keeper, and can now follow steadily his occupation, although troubled at times with symptoms of weariness. He kept right on with his occupation during treatment.

2. The type-writer. This instrument is destined to be of great practical service to writer's cramp sufferers, as well as to those who, though not having the cramp, are made generally nervous and locally tired by the mechanical labor of writing. During the past year I have made many experiments with this instrument, and studied carefully its relations to the nervous system, in order to determine these points. Unfortunately, book-keepers and those who write very short notes or messages and signatures can not profit by the type-writer; but for those who write continuously the instrument is an almost perfect relief. After some instruction a reasonable degree of skill in its practical use can be obtained during the play-hours of two or three months.

Thurber's kaligraph, now almost forgotten, was an ingenious contrivance for writer's cramp sufferers; but it is now superseded by the two inventions just noticed.

3. The use of large pen holders, so that the muscles may be less restricted; fastening a piece of sponge to the pen-holder, so as to relieve the pressure of the fingers. One of my correspondents writes to me that he used this device for a year.

4. Holding the pen between the different fingers, thus relieving the thumb and index-finger. One of my medical friends finds great relief by this device.

5. The use of quills and very flexible pens, and pens with very broad points, so as to run easily like quills. Some pens have been sent to me from Germany that are made with this special object in view. The use of the lead-pencil is also a great relief. The mica pen and the Esterbrook stub-pen are worthy of trial.

6. Frequently changing the pen and the pen-holder and style of pen, so as to change the mode of action of the muscle. Dipping the pen for ink is usually regarded as an evil, but it doubtless saves many of us from writer's cramp.

7. Changing the position in writing, as from sitting to

standing, or holding the paper in the lap. These methods of relief are to be commended, especially for those who are just beginning to have the symptoms of the disease, who are yet in the stage of exhaustion. It is a mistake to always try to point the pen toward the right shoulder. When utterly tired out, it is well to stop entirely.

8. The avoidance of faulty and painful methods of writing, and the study of easy, natural methods. A person who writes a cramped and stiff style, no matter though it be a legible one, is a fair subject for attack, especially if writing occupies most of the time. This factor is of great importance. An eminent author and journalist is accustomed to put his pen in the pen-holder at an angle of several degrees backward, and thus is able, as he tells me, to write consecutively over forty words a minute.

9. Writing with the left hand. Out of eighteen cases that tried this plan, three failed utterly, six were partially successful, and nine were completely successful. In the six partially successful cases the disease either appeared in the left hand, or after a time showed a tendency to appear there. At the beginning of the disease, educating the left hand may be of itself sufficient for a cure.

10. The uses of various gymnastic and athletic exercises, as rowing, paddling, and so forth. In some cases the sufferers are unable to do many other kinds of work; carrying bundles or turning door-knobs hurts them just as writing does; but such cases are exceptions.

Speed of Handwriting.—In the study of this subject, I have made many experiments with a view to determine the average speed of handwriting. I find that between twenty-five and fifty words are written in a minute by those who are accustomed to write, the average being perhaps about thirty words when no time is lost in thinking or dipping the pen.

The method of experimenting that I have adopted is, to have the subject experimented on write something with which he is quite familiar—words of all length—for one minute. Practically, no one writes steadily as fast as these experiments would indicate, for, after a few moments of writing at the very top of speed, there will come to the majority a weariness; then the delay of composition also interferes.

These experiments were made with lawyers, physicians, clerks, book-keepers, scientists, and men of letters. Mr.

T. A. Edison, the inventor, is also an expert in handwriting, and I have made with him a number of experiments in order to test the rate of speed of different varieties of penmanship. When he writes slowly and with care—from fifteen to twenty-five words a minute—Mr. Edison's handwriting is phenomenally clear and beautiful, resembling copperplate printing; not in flowing, but in cramped hand, the letters being often separated as in print. When he rises to forty words a minute, the writing is still more cramped and less beautiful, though yet legible; with forty-nine words a minute, his writing is quite illegible.

I find that journalists write with a lead-pencil—which, as a class, they generally use—from forty to fifty words a minute. Experts on the type-writer, according to my experiments, can print for a short time at dictation from seventy-five to one hundred words a minute; but in practice, very few of those who use the instrument put down on the average more than half that number.

A number of years ago a man attempted on a wager to make with a pen an enormous number of up and down strokes—a million, I believe, within a month or less time. Swelling of the hand and wrist, with severe pain, so annoyed the experimenter that it was necessary for some one to stand near him and pour on cold water and apply various lotions. In this cramped and continuous movement and tension of muscles is found the philosophy of all these forms of professional cramp. I have made some experiments with myself in order to ascertain just how many single disconnected up and down strokes I could make with a pen; and find that from 175 to 200 a minute is about the limit, and very soon the hand becomes wearied. A friend of mine, connected with the Surrogate's office in this city, tells me that the clerks in that department sometimes complain of swelling of the wrist from over-writing.

Mr. Edison, whose amazingly fertile mind is constantly making original suggestions even in departments quite remote from his own, showed me not long ago the following fundamental experiment. A small rod of steel or iron, or other hard substance, about one-third of an inch in diameter, is held very firmly between the thumb and forefinger of the left hand; very soon there comes a pain in the adductor of the thumb, which may be unbearable. This position is a familiar one to manufacturers of electri-

cal apparatus, since it represents their method of winding wire on bobbins.*

Telegrapher's and Musician's Cramp.—The above practical conclusions in regard to treatment apply to the other forms of professional cramp, as that of telegraphers and musicians—violinists, organists, pianists, and harpists; also to the cramp of artists, painters, engravers, and sewing women.

Telegraphic operators have two forms of cramp—the ordinary writer's cramp, from receiving and writing out messages; and true telegrapher's cramp, from striking the index-finger on the sending instrument. The malady is quite a common one among telegraphers; and an attempt has been made to reduce its frequency by the use of a rubber cap on the button on which the finger presses in sending. This device is, I understand, but partially successful.

Musicians, when afflicted with cramp, have the same symptoms as writers, and are likely to suffer in both hands, although one hand may be affected quite differently from the other. In one case that I saw through the courtesy of Dr. Webber, the right hand, on beginning to play, showed contraction of the muscles of the thumb and index-finger, with a tendency upward; while in the left hand, at the same time, the second and third fingers were firmly flexed into the hollow of the hand, so that they could be opened only with great difficulty. In a case now under my care, the right hand is affected in precisely the same way, while in the left hand the little finger only is disturbed. This form of trouble often comes from stretching the hand in playing octaves.

In another case the third finger of the right hand is raised involuntarily while playing; and in an organist now under my care there is simply stiffness and pain in the interossei between the third and little fingers, and anæsthesia of the back of the hand. In the case of a very eminent violinist the muscles of the left arm and forearm, and also the fingers, were so weak and exhausted from long holding the violin in position, that he had to abandon his profession.

I have succeeded in curing a long-standing case of

*Since this was written my attention has been called to two cases of *Barber's Cramp* from the excessive handling of the razor in the operation of shaving.

pianist's cramp, where the symptoms seemed to depend on a neuritis, excited originally by exposure to cold in bathing, and made worse by severe practice at the piano. In this case there had been great uneasiness, and even severe pain after playing, and he had abandoned his profession. He is now able to play several consecutive hours without fatigue.

Report of Cases from Eye-Clinic.

BY W. CHEATHAM, M. D.,

Associate Lecturer on Diseases of the Eye, Ear, and Throat, in University of Louisville.

MR. MAURY HEADY, the "Blind Bard of Kentucky," with whose misfortunes (being both nearly blind and nearly deaf) almost every man in the State is familiar, applied to me some time ago, stating that what little hearing he had, amounting to only enough to enable him to modulate his voice, was failing. While treating his hearing I examined his eyes. He said that years ago the left eye was blinded by a blow from a chip. Thirty-five years ago, a while after losing the left eye, the right received a blow from the heel of a negro with whom he was playing "leap-frog." Since then he has had only slight perception of light—being able to only locate a light, but seeing it in a very diffused manner. Right eye at time of examination showed opaque cornea (about two-thirds of normal size), with the exception of two very small portions, these partially clear spots separated by an opaque one. Behind these portions of the cornea was to be seen a thick membrane of capsule of lens and matted iris. This membrane was in contact with posterior surface of cornea.

Mr. Heady was very much surprised when I told him there were a few chances in favor of an operation on that eye resulting in some sight, as he had been to Boston and New York, where he was told there was no possible hope of any vision. He decided to let me try, as there was very little to be lost.

Placing him under the influence of chloroform, with the assistance of my father and Dr. Bodine, I entered a narrow cataract-knife at outer edge of the external spot of clear cornea, plunging it through the membrane into the

vitreous chamber. The wound was enlarged by making a gentle sawing motion with the knife. The vitreous was in a fluid condition, a great deal of it escaping. De Wecher's scissors were now introduced; one blade passed behind the membrane into the vitreous chamber, and the other before, between the membrane and cornea; the blades closed, and a considerable incision made through the membrane. A similar incision was made above, leaving a flap. At this point the remains of the crystalline lens presented itself. We had decided in consultation that there was no lens present. However, there it was, and great danger of its falling into the vitreous chamber. After six or seven attempts it was finally removed with a pair of forceps, and found to have undergone calcareous degeneration, being as hard as stone. An effort was now made to remove the flap of membrane by means of the forceps and hook. I was met with great resistance, it appearing as if choroid and retina would come with it. However, several small bits were removed, leaving a small hole behind almost opaque cornea.

The presence of remains of the lens having complicated the operation very much, we decided to not make any more attacks on the membrane at present, but to put it off for another operation in the future. The bandage was first applied. In the after-treatment rest was given, and application of first cold and then warm water and atropia used. For several days there appeared to be no perception of light. After that time the eye began to improve, and in three or four weeks after the operation he was able to distinguish the color of houses across the street and to see the stripes of a "barber-pole." The sight is still improving daily. Next fall I hope to be able to make a pupil behind clear cornea, and give him at least sight enough to move around alone. July 9th, is able to read coarse print.

SNELLEN'S TEST FOR BIN-OCULAR VISION.

I have lately seen two cases in which Dr. Snellen's test (of colored letters) for vision of both eyes proved a failure. We are called upon occasionally to decide whether or not vision exists in both eyes. While in New York I was often called upon in the hospital to decide such a question in men applying for pensions, saying that they had lost the sight of one eye. Examination revealing no

cause for blindness, it was necessary in such cases to put them to certain tests to see if they were not deceiving me. While I was in Utrecht, Holland, last summer Prof. Hermann Snellen showed me his test for such cases. It consists of letters such as are used in common tests for vision. They are first cut out as perfectly as possible and covered with red and green glass, alternating first one with red glass and the next with green. This would of course fail in all cases of red or green blindness. Such may exist in one eye only. To make the test, these letters, covered with the glass and framed, are hung so as to have light transmitted through the glass to give them the red and green color. The patient is placed off at the proper distance with a green piece of glass over the good eye (or a red piece may be placed there), and asked to call the letters in the frame. If he should call all, it shows that there is vision in both eyes, as the green glass over the good eye renders him unable to read the letters covered with the red glass. If the eye complained of is blind, the green letters only will be seen.

In the case of which I speak the test was a total failure. Other tests showed the eye was blind. Again I used it in a case where vision was perfect in both eyes, with failure. No one of our tests for bin-ocular vision are sure. All should be used.—*Louisville Medical News*.

On the Dangers of the Injudicious Use of Caustics in Diseases of the Throat.

BY M. F. COOMES, M. D.

Clinical Lectures on Diseases of the Eye, Ear, Throat, and Nose, in Louisville Medical College, Etc.

THE following cases may serve to illustrate the results of the injudicious use of caustics in diseases of the throat:

CASE I.—Jacob K., aged thirty-nine years, consulted me in February, 1875, in regard to the condition of his throat and ears. He complained of distressing tinnitus aurium, imperfect audition, and an inability to breathe through the nose. He stated that fifteen years previous to the time of his visit to me he suffered with an attack of acute pharyngitis, and that he had been subject to such attacks for many years; and that he usually sought the advice

of a physician and obtained relief in a reasonably short time, until on the occasion referred to in this report, when the doctor in attendance applied some caustic agent which produced great pain and made the disease much worse. He says that respiration was rendered very difficult, and that he came near losing his life. On examining his throat I found the uvula and arches of the soft palate adherent to the posterior and lateral walls of the pharynx, in such a manner as to completely close the passage between the nose and bucco-pharyngeal cavity. The voice was very materially changed, and he experienced great difficulty in keeping the nasal cavities clean. The disease of the ears (chronic non-suppurative catarrh of the drum cavities) was in all probability induced by the obstruction in the pharynx, preventing the secretions from passing off in the natural way, and thereby producing inflammation of the membrane lining the nose, which in time extended along the eustachian tubes to the drum cavities. I advised surgical interference for the relief of the obstruction. The patient declined on the grounds that such had been resorted to on a former occasion without benefit, and that he did not care to try the experiment again.

CASE II.—Miss —, aged —, white, the subject of naso-pharyngeal catarrh. The attending physician in this case used the nitrate of silver, with the result of almost closing the space between the mouth and nose, the opening not being more than one line in diameter in any direction. The voice in this case was also very much changed. An operation for the purpose of enlarging the opening was attempted, with only partial success.

CASE III.—Annie S., aged forty, consulted me in the spring of 1878 in regard to her voice. On examining the pharynx, the walls were found to be one mass of cicatricial tissue; the soft palate and uvula were almost destroyed. The laryngoscope revealed the fact that the larynx had not escaped the ravages of the caustic, for the greater portion of the epiglottis had been destroyed; only a small piece remained on the right side. The vocal cords also showed marked evidences of cauterization. The patient was unable to speak above a whisper. Deglutition was but little impaired, notwithstanding the loss of the greater portion of the epiglottis. The previous history of this case is that of a case of ordinary tonsillitis. She said that she had consulted as many as twelve doc-

tors in regard to her throat, and that all of them "burnt it with caustic."

The voice in each of the above cases was unimpaired previous to the application of caustics, and from the history of each it would seem that the diseases were not grave in character until after the caustic applications were made; and, knowing as we do that such is not the result of either of the above-mentioned diseases, if allowed to run their course, without caustic applications, it is then fair to presume that the injudicious use of caustics was the cause of the unfortunate results mentioned above.

Notwithstanding the fact that authors and writers upon diseases of the throat recommend the free use of caustics in most of the affections of that organ, it does seem that if there is any one practice which is abused it is this. The desire to apply caustics to the throat seems to be somewhat of an instinctive act on the part of a great majority of doctors, for they use those agents seemingly regardless of cause or consequence.

Before I proceed further I had best explain what I mean by caustics. I have reference to those agents that possess the power of destroying tissues when applied locally, such as caustic potassa, nitrate of silver in substance or strong solution, pure carbolic acid or solutions of the same, say forty grains or more to the ounce of water; in short, any application that produces an abrasion of the sound surface or has the power of coagulating the albumen of the epithelium. I do not believe that topical or stimulant applications ought to be discarded; in fact, they are indispensable, and are among the most beneficial agents that are used in affections of the throat. Most of the agents referred to above may be so modified as to be used with great benefit in many instances.

In those cases where there is no abrasion or open surface I can not believe that there is any benefit to be derived from caustic applications, nor do I think they are indicated in cases of syphilitic and phthisical laryngitis; for in either of the latter diseases the cause is constitutional, and no amount of local medication will effect a cure without constitutional treatment. Stimulant and soothing applications will be found most grateful and beneficial in such cases. In most all acute inflammatory affections of the throat soothing applications in the shape of spray or gargle will afford relief more promptly than

any caustic application. Warm medicated vapors frequently give great relief, especially in those cases where the larynx is involved. In cases of ordinary acute pharyngitis and laryngitis a gargle composed of half an ounce of the bromide of potassium, one half dram of carbolic acid, and one pint of water will be found very useful. If the larynx is inflamed, allow the patient to swallow a small quantity each time the gargle is used, which should be every hour or oftener.—*Louisville Medical News*.

The Comparative Merits of Salicin and Salicylic Acid in Acute Rheumatism.

It is a fact that salicylic acid and salicylate of soda not unfrequently give rise to considerable and even alarming depression. Such an untoward effect is not produced by salicin. From a therapeutic point of view this is one of the most important points of difference between the two remedies. In a disease such as acute rheumatism, in which the heart is apt to be involved, the absence of this tendency to cause depression points out salicin as a much safer remedy than salicylic acid. Its superiority in this respect is specially referred to by Senator, who, curiously, does not seem to see that the fact to which he directs attention is a strong argument against his view that salicin owes its therapeutic virtues to its being converted into salicylic acid in the system.

Of the depressing action of salicylic acid many instances are recorded. Several have come under my notice. The following is of value as the unbiased evidence of an intelligent, well informed medical man, founded on his own experience of the two drugs. My friend and then neighbor, Dr. Sinclair, of Dundee, now physician to the infirmary of that town, suffered from an attack of subacute rheumatism last December. Before I saw him he had been taking salicylate of soda in twenty-grain doses, with relief to the pain; but it so depressed him and made him feel so wretched that he said he could not go on with it. I recommended salicin instead. He took it in even larger doses than the salicylate, with speedy relief to his rheumatism and without any untoward effect. On the contrary, he seemed under its influence to regain strength and appetite, and was soon quite well.

The following is his own statement, given with his permission:

“ Both drugs relieved the pain, tenderness, and swelling, when taken in full doses frequently repeated. But the salicylate, which I employed first, produced some very unpleasant effects. The taste I found to be disagreeably sweet and nauseous. After taking several twenty-grain doses a copious perspiration was produced; the strength of the pulse was very distinctly diminished, while its frequency was increased, and a feeling of most uncomfortable depression, with singing in the ears, ensued. Indeed, I hardly know whether the disease or the remedy was the preferable. Salicin, on the other hand, has a pleasantly bitter taste; it improved the tone of my pulse and digestion, and relieved the pains more rapidly. Neither drug gave any relief except when taken in twenty or thirty grain doses every hour for from six to twelve consecutive hours. It may be said that had I taken smaller or less frequently repeated doses of the salicylate I might have escaped all the disagreeable effects except the taste—itsself no small a matter. But such doses produced no effect on my rheumatism. To my mind one of the great merits of salicin is the absolute safety with which large doses can be taken. In the course of one period of twenty-four hours I swallowed an ounce of it, with nothing but benefit.”

I have seen salicylate of soda produce very alarming depression closely resembling that of the typhoid state. Not long ago I saw in consultation a case in which it was a question whether the fatal result was not due to the depressing action of the salicylate. By some this effect has been attributed to the presence of carbolic acid, consequent on faulty preparation. Such an explanation may have been applicable to some cases, but is not so to all. I have more than once seen marked depression produced by a solution of salicylate of soda in which no trace of such impurity could be found, and which was given to another patient in the same dose without causing any unpleasant effect. The worst effect that I have ever seen follow the administration of large doses of salicin are a sense of fullness in the head and singing in the ears—such symptoms as are commonly produced by large doses of quinine.

Further evidence against Senator's view of the mode of

action of salicin we have in the fact that salicin cures cases of chronic rheumatism and of neuralgia in which salicylic acid fails to produce any effect on the ailment.—*Dr. MacLagan, in London Lancet.*

Diabetes.

BY THOS. W. POOLE, M. D., M.C.P.S., LINDSAY, ONT.

Author of "Physiological Therapeutics."

From *Canadian Journal of Medical Science.*

SINCE Bernard's brilliant discovery, that mechanical injury of the floor of the fourth ventricle was followed by glycosuria, the influence of the nervous system in the causation of this disease has been fairly recongnized. Numerous facts further point to the vaso-motor system of nerves as specially implicated in the morbid change, on which the disease, at least in part, depends. Thus, there appears conclusive evidence that arterial dilatation is among the constant, if not the primary, phenomena of the process constituting diabetes; and as the caliber of the arteries is known to be under the control of the vaso-motor centers and nerves, the influence of this system is at once apparent. It is also of practical importance to inquire whether, in producing a dilated state of the arteries, the vaso-motor nerves are really paralyzed (as is generally assumed to be the case), or whether, on the contrary, arterial dilatation is the result of vaso-motor excitation, as we claim the facts invariably show to be the case. The treatment will naturally be modified as one or other of these views are adopted.

First, as to the proof that in diabetes important parts of the arterial system are unduly dilated. In connection with the experiment referred to, Bernard found the blood-vessels of the liver dilated, and "he attributed the appearance of the sugar to the increased circulation through that organ." (*Dr. L. Brunton's Hand-book for the Phys. Labor.* p. 513.) Dr. H. Bence Jones quotes M. Schiff for the observation that injury of the cervical nerves as they emerge from the cord also produces diabetes, and that the vessels of the liver are simultaneously dilated. (*Braith Retrospect*, July, 1875, p. 114.) In post-mortem examinations of diabetic subjects "most marked conges-

tion of the liver and kidney have always been found." (*Braith Retrospect*, July, 1875, p. 67.) More recently, Dr. W. H. Dickinson, an English Hospital Physician, reports that in five cases of this disease he found the earliest alteration recognized consisted in a dilatation of the blood-vessels, particularly of the arteries of the cerebro-spinal centers, with extravasation into the adjacent nervous matter, which had undergone secondary changes in consequence. These changes consisted in a degeneration and absorption of the peri-vascular nervous tissue, producing cavities or excavations, which were found in constant association with the arteries . . . in every part of the spinal cord and encephalon, attaining their greatest development in the medulla oblongata and pons varolii. The excavations were generally the most marked where the blood-vessels piercing the brain were the largest and most numerous." Dr. Dickinson refers these effects to the previously dilated condition of the vessels, the consequent thinning of the walls of which, no doubt, greatly facilitated the extravasation. He argues, very forcibly too, that these results are not chargeable to the state of the blood, inasmuch as "the veins and capillaries appeared to take no share in the morbid process," as they might be expected to do, if the extravasation were depending to any considerable extent on the condition of that fluid. Hence, he concludes, not only "that diabetes is primarily and essentially a nervous disease," but also that "a widening or distension of the arteries is the initial change in the pathological series." (*Med. Chir. Trans.*, 1870, p. 251; *Braith Retrospect*, July 1871, pp. 105-107.)

These references will suffice for this part of the subject; and as no fact in physiology is better established than that the caliber of the arteries is under the control of the vaso-motor nervous system, we pass at once to the inquiry, Are the vaso-motor nerves paralyzed, or excited, when they thus permit or produce arterial dilatation?

On the generally accepted vaso-motor theory, arterial dilatation is the result of vaso-motor paralysis, just as arterial contraction is held to depend upon vaso-motor excitation. We have had the boldness to challenge this theory; and in our recently published "Physiological Therapeutics," we have cited numerous examples of the failure of this theory to account for the facts with which we believe we are justified in stating it is under no cir-

cumstances in accord. We have further endeavored to show that the real function of the vaso-motor nerves is to dilate the arteries (as when excited, in flushing, blushing, etc.), and that the arteries owe their reduction of caliber to the inherent contractile power of their muscular tissue. Thus, in death, when nerve-force is extinct, the entire arterial system is contracted; whereas, if the accepted vaso-motor theory were true, they ought to be here dilated, since nerve-force no longer induces their contraction. We can not refer to the facts and arguments in support of our thesis, just referred to, in this place; but, taken in connection with some additional facts regarding diabetes, we think strong ground will appear for the conclusion that in the arterial dilatation of diabetes, as well as elsewhere, the vaso-motor nerves are excited, and not paralyzed, and that the treatment ought to be regulated accordingly.

These facts are:—It is favorable to the view that the vaso-motor nerves are not paralyzed; that in Dr. Dickinson's cases "such parts of the sympathetic system as were examined [microscopically], namely, the upper cervical and the semilunar ganglia, were apparently natural," and "the nerve-cells of the brain and cord [in which the vaso-motor nerves originate] generally perfect;" whereas, in paralysis, especially of the insane, there is often wasting of the nerve-cells.

If diabetes originated in paralysis of the vaso-motor centers in the medulla and cord, we ought to find evidence of contemporaneous paralysis of other portions of the nervous system, and as a consequence, that the onset of the disease would be characterized by weakness, exhaustion or debility. But the very opposite is the case, as a rule. Thus, M. Andral, of the French Academy, reports to that body, that of eighty-four cases of this disease, he has been able to trace the diabetes to defective nutrition in but very few cases, and he observes that "during the many years that I have attended persons of all classes of society, in and out of hospitals, I have met with a larger number of cases among the well-to-do than among the poor. . . . I have found more than once that persons before they became diabetic were remarkable on account of the strength of their constitution, some of them having much *embonpoint*. Whatever, then, may be the intimate disturbance which introduces—first, in the blood, and con-

secutively in the urine—an excess of sugar, it would seem, in more than one case at least, that this hyperglycæmia and this glycosuria, so far from representing a diminution of nutritive activity may manifest an exaggeration of this . . . in most of the eighty-four cases, the diabetes manifested itself in the midst of good health.” (*Braith Retros.*, July, 1876, p. 66.)

M. Andral also records the arrest of the excess of sugar, on the occurrence of a prostrating disease; but it may be fairly regarded as doubtful how far this result was owing to a “modification of the nutritive action” or to “suspension of the alimentation” occasioned by the second disease. The writer has now under observation a diabetic patient, who assures us that when debilitated from a cold the sugar temporarily disappears from the urine.

These facts gain additional significance when considered in the light of “another remarkable fact, viz: the disappearance of the sugar from the urine in the last stage of the existence of diabetic persons,” the truth of which M. Andral states he has been able to assure himself more than once. (*Id.* p. 66.) Now, if diabetes depended on exhaustion or paralysis of any part of the nervous system, here is just the condition in which the glycosuria should appear in the greatest amount; for here nerve-force is failing, and if the current vaso-motor theory were true, the arteries would be proportionally dilated, thus aggravating the condition on which Dr. Dickinson believes the disease essentially depends. On the other hand, if the undue vascular dilatation has been maintained during comparative bodily vigor, owing to vaso-motor nerve *excitation*, as nerve-force fails “in the last stage of existence,” its power of dilating the vascular tubes fails also, and the arteries begin to assume that state of contraction which is complete in death; their undue dilatation, on which diabetes essentially depends, is at an end, and the glycosuria ceases with it. How naturally this view of the case accounts for this remarkable fact!

Let us glance, as briefly as possible, at the causes which produce diabetes, in order to see how far they are consistent with the vaso-motor excitation or paralysis. And first, as to the puncture of the floor of the fourth ventricle, in Bernard’s experiment. The chief vaso-motor center is located by physiologists in this part of the medulla oblongata (*Dr. Burdon-Sanderson, Handbook for the Phys.*

Lab. p. 245, etc.), and is certainly influenced by the operation, which is commonly referred to as producing "irritation," of the medulla. Drs. Todd and Bowman more than once refer to excitation of nerve function as the result of traumatic injury of nerve tissue. (*Path. Anat.* pp. 300, 304.) Dr. Ferrier found excitation of the sexual function in a monkey consequent on removal of the occipital lobes of the brain, although at the time the animal was much prostrated (*Functions of the Brain*, p. 198), and Dr. Burdon-Sanderson interprets as "excitation of the ganglion of the septum" of a frog's heart, the effect of ligaturing the inferior vena cava, or excising it, "preferably with a blunt scissors." (*Handbook*, etc., pp. 277-8.) These examples leave no room to doubt the propriety of regarding puncture of the fourth ventricle as producing an *excitation* of the implicated or contiguous vaso-motor center, and of accounting in this way for the vascular dilatation which follows. If any additional proof of this view be necessary, Prof. Kuss supplies it to us in his lectures on physiology. He states:—"The congestion of the liver and excitation of its glycogenetic which follow a puncture made in the fourth ventricle do not, however, appear to be produced simply by a (nervous) paralytic hyperæmia, arising from the abolition of the vaso-motor innervation; because the artificial diabetes thus produced is but temporary (lasting at the most twenty-four hours). This diabetes appears rather to arise from the *excitation* of certain nerves included in the net-work of the great sympathetic nerve, and which are to the liver what the chorda tympani is to the sub-maxillary gland. (*Trans. by Duval. Amory*, p. 273.)

Schiff found that section of the posterior (sensitive) roots of the cervical spinal nerves caused temporary diabetes, which he regarded as the effect of the "irritation" thus produced. (*Dr. W. Bence Jones, Braith. Retros.* July, 1865, p. 114.) That section of the roots of these centripetal nerves should excite the contiguous vaso-motor centers of the cord, and even of the medulla, is highly probable, and his explanation of the consequent dilatation of the arteries and the production of diabetes is quite in accord with the physiological interpretation of other operations on nerve tissue, and with the opinion of Professor Kuss, just quoted.

Each of the following operations is attended with the

appearance of sugar in the urine; and though it would be impossible to show that they occasion dilatation of the vessels of the liver directly, or through an excitation of the vaso-motor nerves, it is quite possible to show, on physiological grounds, that this dilatation is produced indirectly through the operation of collateral causes. The operations which thus produce diabetes are:—

Ligature of the inferior vena cava, below the liver, in the frog.

Faradization of the central end of the cut vagi, or of the medulla oblongata.

Section of the anterior roots of the cervical nerves.

Section of the sympathetic nerves connecting the spinal cord with the inferior cervical ganglion.

Extirpation of the inferior cervical or first dorsal ganglion.

These several operations, apparently so different, have this in common, that they all tend, in a special manner, to lessen the circulation of blood in the lungs, and to produce a marked hyperæmia and distension of the liver—the very condition so intimately associated with the production of diabetes.

Thus, tying the inferior vena cava, below the liver, causes the blood reaching the heart and lungs through that channel, to pass, by anastomoses existing in the frog, into the portal vein, and through the capillaries of the liver, where it is not only greatly retarded, but produces the hyperæmia, dilatation, and diabetes referred to. (See Prof. Kuss, Lec. p. 273.)

GLEANINGS.

TREATMENT OF INTERTRIGO IN INFANTS.—Intertrigo always begins as an erythema, a simple hyperemia of the skin, caused by some chemical or mechanical irritant, such as an abnormal character of the feces, decomposed urine, etc., or by the continued contact and rubbing of two cutaneous surfaces opposed to each other. When the intertrigo is situated in the neighborhood of the anus, attention is to be directed, primarily, to the cause of the stools. If they are thin and of acid smell, the following powder is to be used two or three times daily: Calcis precipitat. gr. iss. bismuth subnitrat. gr. i. sacchari alb. gr.

ij. M. In other cases where the discharges have a less serous character, and are characterized rather by abundant yellowish-white flakes of casein, minute doses of hydrochloric acid produce better results. Great care is to be taken to remove wet diapers, and to insure constantly dry underclothing, whilst the folds of skin should be washed with lukewarm soap and water. Powders should be used locally only when the epidermis is sound, an admixture of semen lycopodii with finely powdered sub-nitrate of bismuth, or oxide of zinc, being found most useful. Whenever the intertrigo is so advanced as to produce moist excoriations, the unguentum diachyli of Hebra is most satisfactory in fresh cases. In other cases it fails, and corrosive sublimate is to be employed in severe forms of the disease. This remedy is applied in solution, about one grain to four ounces of water, F. Pieces of lint are soaked in this solution, and laid upon the diseased surface. It often suffices to apply the solution in this manner three or four times a day for an hour at a time, and it is only rarely that the application need be continuous. The disease is frequently cured in this manner in from twenty-four to thirty-six hours. No injurious effects from the absorption of mercury have been observed. Whilst the recovery is progressing, the unguentum diachyli should be employed for a short time to prevent relapses. All doubts as to the existence of congenital syphilis must be excluded.—*Boston Medical and Surgical Journal*.

FOREIGN BODIES IN THE ESOPHAGUS.—In a lecture upon this subject Professor Verneuil (*Gaz. des Hop.*) directed particular attention to the frequency with which all the symptoms of the presence of a foreign body may persist, even in an alarming manner, and sometimes for a long time (in one case more than a month), after the foreign body has been removed or has descended into the stomach. This is due to the laceration of the walls of the esophagus produced by the body and the attempts at its removal, and is especially observed in hysterical and nervous subjects. As it is kept up by explorations of the esophagus, these should never be repeated after the diagnosis has been exactly made, and that notwithstanding the persuasions of friends and relatives, who, unaware of the reflex nature of these symptoms, urge the repetition of the explorations. In withdrawing the exploring instrument, either

with or without the foreign body, some difficulty may be found at the cricoid ring, where there is a notable projection into the interior of the esophagus, and which is increased by the contraction of the cricoidean muscle. This may be overcome by practicing a half-tuning movement, instead of making traction in a direct manner. Professor Verneuil added that for foreign bodies in general, although in certain cases counseling the utmost promptitude, there are others in which extreme reserve is the best practice. Thus, where the foreign body causes no disturbance of the function of the part in which it is buried, researches for it may do more harm than good; *e. g.*, when a needle gets buried in the hand.—*Medical Times and Gazette*.

TREATMENT OF ECZEMA.—Piffard recommends in chronic erythematous eczema the ordinary astringents to reduce the congestion, as also a solution of bromide of potassium in glycerine, fld. ext. ergot in cold cream, and a similar preparation of arnica root. For the pruritus he greatly relies upon the hydrate of chloral and camphor mixture of Bulkley, in the proportion of ten to twenty grains to the ounce of ointment. He advises against the use of water in the exudation stage, and calls attention to the virtues of tincture of Hamamelis for the itching; this latter drug is of particular value in eczema complicated with varicose veins. In chronic eczema, Piffard has obtained good results from the hypodermic injection of arseniate of sodium into the affected regions.—*N. Y. Med. Record*.

DANGERS OF CHLORATE OF POTASSA.—Chlorate of potassa is by no means an indifferent remedy. It can prove and has proven dangerous and fatal in a number of instances, producing one of the most dangerous diseases—acute nephritis. We are not very careful in regard to the doses of alkalis in general, but in regard to the chlorate we ought to be very particular, the more so as the drug, from its well-known either authentic or alleged effects, has risen or descended into the ranks of popular medicines. Chlorate of potassa or soda is used perhaps more than any other drug I am aware of. Its doses in domestic administration are not weighed, but estimated; it is not bought by the dram or ounce, but the ten or twenty cents' worth. It is given indiscriminately to young and old for days or even weeks, for the public are more given to *taking hold*

of a remedy than to *heed warnings*, and the profession are no better in many respects. Besides, it has appeared to me, acute nephritis is a much more frequent occurrence now than it was twenty years ago. Chronic nephritis is certainly met with much oftener than formerly, and I know that many a death-certificate ought to bear the inscription of nephritis instead of meningitis, convulsions, or acute pulmonary edema. Why is this: Partly, assuredly, because for twenty years past diphtheria has given rise to numerous cases of nephritis; partly, however, I am afraid, because of the recklessness with which chlorate of potassa has become a popular remedy.—*Dr. A. Jacobi, in Medical Record.*

EMOLLIENT TREATMENT OF GONORRHEA.—Dr. Louis Bauer, in St. Louis *Clinical Record*, closes a second article on this subject with the following aphorisms:

1. Gonorrhea is indisputably a local disease.
2. The cause of gonorrhea is local also, and of ephemeral duration.
3. Gonorrhea is inflammatory in character, and, if not disturbed by stimulating treatment, limited to the anterior portion of the urethra.
4. Primarily gonorrhea affects the mucus membrane only.
5. Whatever may be the primary disintegration of the urethral lining by gonorrhea, the structures involved are endowed with the power of spontaneous repair; that is to say, the reproduction of epithelium.
6. The reason why the erythematous inflammation of the urethral canal deserves special consideration and treatment in its special function to serve as an aqueduct for a saline fluid (urine).
7. The only rational indications for the treatment of gonorrhea are (a) To protect the raw surface of the mucous membrane against contact with urine; (b) To dilute the urine by frequent bland beverages, warm (alkaline) baths, and the like; (c) To reduce the inflammation and the hyperesthesia of the nerve papillæ.

By what means these indications are realized is a matter of no consideration so long as they truly fulfill their respective objects.

CREMATION.—The municipal council of Udine has lately published a decree in which it declares that, after having duly weighed and considered the advantages and draw-

backs of cremation *versus* interment, it has come to the conclusion that the former is in every respect preferable for the following reasons: 1. In a hygienic point of view it is undoubtedly the best way of disposing of dead bodies; 2. It is a mark of progress, because, by making cremation optional, the individual is at liberty to choose between the two modes of burial; 3. Considered from a scientific, social, religious and sentimental point of view, no valid reasons can be brought forward against it, while many very good reasons might be quoted for it; 4. The expenses would not be heavier than those of an ordinary burial. Cremation has been long introduced, and is carried out at Milan as at Getha. It is now also officially authorized in Paris.—*Br. Medical Journal*.

OBSTINATE HICCOUGH CURED BY MURIATE OF PILOCARPINE.—Dr. Ortille reports a case of persistent singultus, due to cerebral embolism, which proved utterly rebellious to all the usual methods of treatment. As the singultus persisted even during the sleep produced by morphine injections, and the strength of the patient was becoming greatly reduced, a hypodermic injection of half a grain of pilocarpine was at last administered. This produced abundant perspiration and salivation, and the hiccough ceased at once.—*Alt. Med. Cent. Zeil.*

BOOK NOTICES.

SPERMATORRHEA: ITS CAUSES, SYMPTOMS, RESULTS, AND TREATMENT. By Roberts Bartholow, A. M., M. D., LL. D., Professor in Medical College of Ohio. Fourth edition, revised. 8mo. Pp. 127. New York: Wm. Wood & Co. Cincinnati: R. Clarke & Co. Price, \$1.25.

This work has become very popular indeed, having reached in a brief period four editions. It is regarded the best authority extant upon the subject of which it treats. By successive additions of material and by rewriting, since the first edition, it has become quite a new work.

The author regards spermatorrhea a *neurosis*, and that the treatment, to be successful, must be founded on this pathological basis.

A MANUAL OF MIDWIFERY: FOR MIDWIVES AND MEDICAL STUDENTS. By Fancourt Barnes, M. D., Aberdeen, M. R. C. P., London, Physician to the General Lying-in Hospital, and to the British Lying in Hospital, etc. With illustrations. 12mo. Pp. 201. 1879. Philadelphia: Henry C. Lea. Cincinnati: R. Clarke & Co. Price, \$1.25.

The author of this excellent little work states in the preface that he has written it more especially for midwives, who need more uniform instruction in the future than there has been in the past. He has therefore set forth in plain language so much of the principles and practice of midwifery as it is essential for the midwife to know. There has been added the examination questions which have been set for the diploma of the Obstetrical Society, of London. Besides to midwives, the book will be found most useful to those students who are attending their first cases of labor, and who, therefore, do not require the discussion of any of the obstetric operations.

The book is written in plain, and, as far as possible, untechnical language. Any intelligent midwife or medical student can easily comprehend the directions. It will undoubtedly fill a want, and will be popular with those for whom it has been prepared. The examining questions at the back will be found very useful.

HANDBOOK OF THE DIAGNOSIS AND TREATMENT OF THE DISEASES OF THE THROAT AND NASAL CAVITIES. By Carl Seiler, M. D., Lecturer on Laryngoscopy at the University of Pennsylvania, etc. With thirty-five illustrations. 12mo. Pp. 156. Philadelphia: H. C. Lee. Cincinnati: R. Clarke & Co. Price, \$1.00.

This little volume, as the author states, is intended to serve as a guide to students of laryngoscopy in acquiring the skill requisite to the successful diagnosis and treatment of the diseases of the larynx and nasopharynx. All purely theoretical considerations have, therefore, been omitted, and only points of practical importance have been discussed as concisely as possible, so that the work may be used as a ready book of reference on the subjects of which it treats.

Very plain and detailed instructions are given in the use of instruments for examining and treating diseases of

the throat. Our readers are aware that within a few years very great improvements have been made as regards these. New ones have been invented, old ones improved, and others discarded. In the invention of the laryngoscope, a complete revolution has taken place in the treatment of throat affections. With this instrument, which enables an individual to *see around a corner*, the interior of the larynx and neighboring parts are brought into view, and their exact condition ascertained, facilitating very much the greatly improved treatment. Besides a description of the now most commonly used instruments for examining diseases of the throat, and for applying remedies, the author describes a number of the most ordinary throat affections, and how to manage them. We feel very sure that the work will be regarded a very valuable one, and we take pleasure in recommending it.

A TEXT-BOOK OF PHYSIOLOGY. By J. Fulton, M. D., M. R. C. S., England, L. R. C. P., London, Professor of Physiology and Sanitary Science in Trinity Medical College, Toronto, etc. Second edition, revised and enlarged. With numerous illustrations. "*Labor omnia vincit.*" 8vo. Pp. 416. Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co. 1879. Price, \$4.00

In noticing this valuable work we think we can not do better than to quote from the *Canada Lancet*:

"The former edition of this work having been exhausted, within a comparatively short space of time, and as there was a large and increasing demand for the book, it was deemed advisable to prepare at once a second edition. In doing so the author has been at great pains to bring out prominently all the recent advances in physiology, which have been sanctioned by the highest authorities. This has necessitated a large addition to the size of the former work, bringing it up to 416 pages, but the original plan of arrangement has been rigidly adhered to. Many of the chapters have been entirely re-written, and numerous illustrations introduced wherever they appeared necessary to the elucidation of the text. The subject of histology has also received great care and attention, so that the work forms an excellent text-book for students on both the subject of physiology and histology. The former edition of this work is well known to the profes-

sion in Canada, and nothing further is necessary to be said in regard to it, than that the second edition is not lacking in those qualities which rendered the former so deservedly popular."

As a work for students it will be found unexcelled. The descriptions, while sufficiently full to give a clear idea, are not overladen with details, being confined to essential points, and are therefore concise and easily remembered. The cuts representing minute and microscopical anatomy are good, and will assist the young microscopist very much in his studies. We cordially recommend it to physicians and medical students who desire a concise work on physiology fully abreast of present knowledge.

THE DISEASES OF THE STOMACH, THE VARIETIES OF DYSPEPSIA, THEIR DIAGNOSIS AND TREATMENT. By S. O. Habershon, M. D., London, F. R. C. P., Lecturer on the Principles and Practice of Medicine at Guy's Hospital, etc. Third edition. 12mo. Pp. 324. 1879. Philadelphia: Lindsay & Blakiston. Cincinnati: R. Clarke & Co. Price, \$1.75.

The present volume contains the results of the many years of experience of the author in the hospital, as well as in private practice; and the experience of such a physician as Dr. Habershon, having the reputation he has in the treatment of affections of the stomach and the digestive organs generally, must be very great indeed, consulted, as he would be under such circumstances, by many thousands of sufferers.

The work contains twenty chapters, treating of all the various diseases of the stomach and the varieties of dyspepsia. The first chapters are devoted to the physiological principles involved in the processes of digestion, and explain the changes of digestion at different periods and conditions of life, and the general sympathy of the stomach with diseases of other organs. These chapters contain a great deal of valuable information; and without the knowledge they contain, a physician could not help but employ medicines in the treatment of stomachic and dyspeptic disorders at random. They lay the foundation for the scientific management of these affections. We quote from page 35: "There are some conditions of ordinary life which require notice; for the digestive process is in them strangely modified, and the whole system sympa-

thizes with the important processes that are being carried on—we refer to pregnancy and to lactation. The former state induces remarkable changes in the vaso-motor or sympathetic nerve of the abdomen. There is the closest union between the uterus and the stomach. A state of irritability is frequently induced, so that the stomach rejects its ordinary supply; and it does so especially in the morning, the period at which digestion is the most active. This irritability of the gastric surface is sometimes so severe that all food is rejected, quite independent of mere pressure on the viscus; the months of gestation are periods of wearisomeness and distress; the gastric disturbance, however, at once ceases on delivery. In some cases, the disturbance of the stomach has been referred to the secretion from the kidneys becoming disordered and changed, and this, in some instances, is doubtless an aggravation of the symptom. Again, direct pressure greatly increases the distress of this kind; but neither of these conditions suffices to explain the state we refer to; it would seem as if the large nerve ganglia supplying the abdominal viscera were disturbed by the greater energy of the uterine plexus. Again, there are those in whom conception at once removes all symptoms of indigestion; so that pain and flatulency, which for many months previously had induced indisposition, are no longer felt, and there is the enjoyment of health and strength not experienced at other times. Unfortunately, in some of these instances one trouble returns as soon as the other trouble is over, and before physical strength has been thoroughly regained, the digestive process is again impaired; the uterine activity of function seems to induce equable and healthy action of the stomach."

LESSONS IN GYNECOLOGY. By William Goodell, A. M., M. D., Professor of Clinical Gynecology in the University of Pennsylvania. 8vo. Pp. 377. Philadelphia: D. G. Brinton. Cincinnati: R. Clarke & Co. 1879. Price, \$3.00.

This work, the author states, is not designed to be a treatise upon the diseases of women, but is mainly the outcome of clinical and of didactic lectures delivered to the advanced students of the Medical Department of the University of Pennsylvania. But whether it may be a treatise or an "outcome of clinical and didactic lectures"

—there is nothing in a name, it is said—it will make but little difference—it is just such a work as every practicing physician needs. The various lessons into which it is divided contain brief, but clear and comprehensive descriptions of the various diseases to which women are liable, and the best modes of treating them, and that is precisely what is wanted. Its clinical character adds much to its interest, and tends to make it more practicable. A disease is described as it exists in a living subject, brought in and examined in the presence of the class. What constitute the diagnostic symptoms of any particular affection, what differentiates it, under the circumstances, from all others, is made plainly evident, and do not become lost, as it were, among a hundred others that are detailed, as is sometimes the case, in a large treatise in which the essential phenomena are related along with all others that may exhibit themselves.

In describing sarcomatous degeneration of the endometrium, our author says: "Irregular and profuse menstruation, and intermenstrual leucorrhea, gradually becoming more and more fetid, are the first symptoms; then pain, when the mass has grown large enough to arouse the resentment of the womb and awaken its contractions. The curette will cause considerable hemorrhage and bring away many fragments which present the appearance of medullary cancer; but a microscopic examination will infallibly determine their character. If the cervical canal be now dilated and the finger passed in, the uterine cavity will be found filled by an irregular, ragged and diffuse growth, without a capsule, which breaks down under the finger. Sometimes the womb, irritated by the growing mass into powerful contractions, will force a portion of it into the vagina. It will then assume the form of a polypus, the pedicle of which will be the part constricted by the os uteri. By this constriction the circulation of the protended portion becomes impeded. It therefore disintegrates, bleeds profusely, and gives off a very fetid smell. Its diffuse growth, absence of capsule, friability, placenta-like structure to the feel, and, later, its excessive fetor, stamp it with an almost unquestionable microscopic individuality." The prognosis is stated to be an extremely unfavorable one, but the fatal issue is greatly postponed by operative measures.

Under the head of "Causes of Uterine Disorders," our

author discusses faulty closet accommodations, and is disposed to blame them no little for the constipated bowels and torpid livers, etc., which act very largely as factors in producing uterine disorders. The very name of *privy*, he declares, is very often a misnomer. Both in country and city, not unfrequently, it is built of rough boards, rudely spiked together, with cracks wide enough to destroy all privacy, with a door without a bolt, and generally hanging by one hinge, with a crescent-shaped hole for a window, and with its sole article of furniture, a barrel of rasping corncobs. It is never sheltered from the rude blasts of winter, and is poisoned by noisome stench, acrid vapors, and unclean flies. Oftentimes it is situated at a great distance from the house, at the back of the lot, and to reach it requires exposure to the road or street, or to the back windows of neighboring houses. "Imagine now," he says, "broad daylight with its busy traffic, a rainy or a dark night, the grass wet with dew, or the ground covered with snow, or the temperature, perchance, many degrees below zero. Under such circumstances, what woman can respond to the calls of nature without putting herself to great discomfort, to great risk, indeed, if she be menstruating, or without blunting the edge of her womanly sense of decorum? Nor is this last phase of the subject the least important. The shrinking from publicity in the performance of these functions is neither 'prudery' nor 'false modesty,' but a virtue of which our women may well be proud. Our forefathers, who scorned clothing and cleanliness, and who eased themselves, like their cattle, whenever the desire seized them, were in appetite little better than cannibals, in temper and morals lower than the brute. When they began to wash themselves, they began to clothe themselves; and after the culture of the body that of the mind followed as a matter of course." After still further disquisitions upon the subject, says our author, "Show me the nation that gives the most compact, the most privacy, the most solicitations, to the evacuations of the body, and you show me, in refinement, in education, and in morality, the foremost people on the face of the earth."

Instead of the common *privy* he thinks water-closets, properly situated and drained, and made secure against the escape of gases throughout the residence, should be constructed in the house. This is easily done in cities by

connecting them with the public sewers running beneath the streets—the pipes being fitted with closely fitting valves or traps. We will say that there should always be two of them. One for the servants, and the other for the family. But where water-closets can not conveniently be made in the house, the *privy* should be at a convenient distance, sheltered from the weather and view, free from disgusting smells and sights, and inviting rather than repelling to attend to the calls of nature. When the circumstances are not thus favorable, a delicate woman postpones attending to her wants until driven by sheer necessity, thus schooling herself into the habit of resisting the evacuation of her bowels, and bringing upon herself all the attendant evil consequences.

DISEASES OF THE THROAT AND NASAL PASSAGES. A Guide to the Diagnosis and Treatment of Affections of the Pharynx, Esophagus, Trachea, Larynx and Noses. Second edition, revised and amended. With 208 illustrations. By J. Solis Cohen, M. D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College, etc., etc. 8vo. Pp. 742. New York: William Wood & Co. Cincinnati: R. Clarke & Co. 1879. Price, \$5.50.

This is the largest and most complete work upon the class of diseases of which it treats in the English language, and we think we can assert with propriety that it is the best. As the author no doubt correctly states, in his preface, the preparation of it has been no holiday task with him. Preparing such a work so that it may embody all the recent knowledge of the complicated affections of the throat and nasal passages—the advancement made in the understanding of their pathology, and the improved methods of treatment—has been an undertaking of no little labor.

In this, the second edition, considerable change has been made. Some material has been suppressed, some modified or augmented, and some added. Certain illustrations have been discarded, and others introduced. Anatomical considerations of special clinical significance have been introduced into the text, as before, at points deemed most useful, and have been still more closely confined to matters as yet unincorporated in the most accessible textbooks. Special manipulations, operations and therapeutic

measures are described, either when first alluded to, or in connection with the subject matter to which they are most applicable, instead of being consolidated in a separate chapter, as has been done by other writers.

Chapter first treats of diseases of the throat in general, in which the author discusses, at considerable length, a number of the most prominent causes of them. A frequent cause of irritation eventuating in inflammation of the throat of a subacute or chronic character, he mentions the inhalation of an atmosphere impregnated with the product of tobacco smoke. He says that tobacco making is in itself in many instances an exciting cause, but when not an initial cause of the disturbance very often it has a great deal to do with its persistence and chronicity. Exposure for hours at a time to the air of an apartment charged with the fumes of tobacco is a much more frequent source of disease in the throat than the mere smoking of tobacco in a private room.

He regards as another cause the promiscuous use of hot and cold food and drink at the same repast. Thus one, he says, partakes of hot soup, or drinks hot coffee or tea, and cools the mouth and throat by draughts of ice water taken at intervals during the meal. Or, after enjoying a warm dinner, one indulges in ice cream or ice water, and follows this by a draught of hot coffee. This alternate application of hot and cold to the delicate mucous membrane of the throat, if persisted in, can hardly fail to place it in a condition favorable for the inflammatory process.

Among the causes, also, our author classes the generally recognized excitants of overstraining the vocal cords in singing, screaming, public speaking, prolonged reading aloud, talking to the deaf, quarreling, and so on.

Every physician of any experience has noticed the exceeding liability of throat affections to recur after a first attack. Dr. Cohen speaks of this, and recommends to break up this acquired predisposition, the habitual use of the cold bath, or, at least, the matutinal sponging of the head, neck and chest with cold water. This practice induces a certain amount of tolerance and exposure to atmospheric changes, and diminishes the susceptibility of the parts to disease.

A patient subject to sore throat, he states, should never keep on at night the underclothing worn during the day, but should turn it inside out and hang it up to air. But

this advice we ourself give not only to persons subject to throat affections, but to all others. When in attendance upon our literary college, the venerable President, not a physician, at the beginning of every session, urged this change of clothing upon the students in his sanitary recommendations, and it struck us as sensible admonition, and we have followed it ever since. Frequent changes of underclothing are desirable, and woolen and silk fabrics, he says, of texture suited to the season (three varieties of weight at least, for summer, autumn and spring, and depth of winter), are usually preferable to cotton. But as regards the covering of the feet, our experience is that cotton is to be preferred to wool; for the latter often causes considerable perspiration, while the former does not, and, therefore, the feet are kept constantly wet, and the person made liable to take cold.

Chapter second is devoted to describing the modes of making examinations of the throat and nasal passages. This chapter alone, to the student, is worth the price of the book. With the very large majority of physicians, no further efforts are made at examining the throat than to place the patient in front of a window, and then, with a tongue depressor, which is usually nothing more than a spoon handle, to depress the tongue. Of course, with such an examination, only those parts are seen which can be made visible in this way, and these, usually, are the least important parts that are diseased. In fact, if the physician had a laryngoscope and other instruments for making a more extensive examination, they would be useless to him, for he would not know how to use them; and, with a physician who has been long in practice since many of these valuable instruments have been invented, it is impossible for him to go away from home to learn their use. But with a work like the one on our table, so detailed and plain on the descriptions of all the necessary manipulations, it will be an easy matter for any medical man, with ordinary ingenuity, to soon become expert in them.

But we have prolonged our notice of the work as far as our space will permit. We will only further say that it is a very valuable one, and supplies an undoubted want. It should be on the library shelves of every physician who sincerely wishes to be qualified to treat scientifically and to relieve the very numerous sufferers of a

class of diseases, which, if not oftentimes immediately dangerous to life, are frequently painful, distressing, inconvenient, and stand very much in the way of one's usefulness. In fact, very many persons, as singers, public speakers, etc., have their means of making their living destroyed by being sufferers of some one or more of the affections of which the work treats.

The publishers have gotten out the work in a most creditable manner. It is printed on excellent paper, in a good clear lively type. The illustrations are very superior.

CORRESPONDENCE.

DANVILLE, KY., May 15, 1879.

EXETER Medical News.—The State Medical Society convened here on the afternoon of the 13th,* in the Broadway Methodist Church. Nothing of special interest occurred on the first day, but in the evening the new Second Presbyterian Church was well filled with members of the Society and citizens of the town to listen to the address of the President, Dr. Chas. H. Todd, of Owensboro. Dr. Todd discussed some points of vital interest to the profession. After some preliminary remarks he said: "There is, undoubtedly, an inseparable connection between State medicine and a higher medical education, the former embracing laws for the protection from disease by sanitary measures, for defining the essential qualifications of the general practitioner and pharmacist, and for securing vital statistics." He alluded to the inefficiency of the State Board of Health in protecting the citizens of Kentucky from disease during the last year, and remarked that "the success of a judiciously organized health system would be insured, if it could receive the earnest and harmonious support of the 2,500 physicians scattered over the 117 counties of the State." "The present advance in medicine looks to the prevention of certain diseases by sanitary regulations rather than their cure by remedial agents, and the solemn duty

*This letter got mislaid, or it would have appeared long ago. Although appearing late we believe that, nevertheless, it will prove interesting and therefore publish it at the present time.—ED.

devolve upon the physician to educate society to a standard sufficiently high to appreciate this requirement, to guide them in the enactment of suitable laws, and urge the local authorities to their enforcement. This association is the mouthpiece of the medical profession of this State, and the physicians and society have a right to require that preventive medicine shall receive at its hands the consideration which the great advance in science demands." The Doctor spoke at length on the importance of higher medical education, and compared, very graphically, the positions held in a community by educated and uneducated physicians. As a whole, the address was an able argument in favor of medical legislation, the direction and extent of which not being accurately defined. As a presiding officer, the Doctor combined ability with grace, conducting the deliberations in an admirable manner.

On Wednesday morning, at 9 o'clock, the Society was again called to order. The first thing in the order of business was the election of officers for the ensuing year, and it resulted as follows: Dr. R. W. Dunlap, of Danville, President; Dr. J. W. Singleton, of Paducah, First Vice-President; Dr. O. D. Todd, of Eminence, Second Vice-President; Dr. A. Dixon, of Henderson, Corresponding Secretary; Dr. J. A. Larrabee, of Louisville, Treasurer; Dr. J. N. McCormick, of Bowling Green, Recording Secretary; Dr. J. C. Peyton, of Christian County, Librarian; and Doctors J. W. Holland, Coleman Rogers and P. B. Seab, of Louisville, Committee on Publication.

The following committees reported: Dr. W. Wathen on "Venus Vaginal Fistula with Laceration of the Cervix Uteri;" Dr. A. W. Johnstone, of Danville, on "Dermatology;" Dr. B. W. Stone, of Hopkinsville, on "Early Management of the Insane," read by the Secretary; Dr. F. C. Wilson, of Louisville, on "Mechanical Aids in the Treatment of Chest Diseases;" after which Dr. Larrabee, of Louisville, read a voluntary paper on "Rickets."

AFTERNOON SESSION.—Among the distinguished men present were Doctors S. D. Gross, of Philadelphia; L. A. Sayre, of New York; Kimball, of Lowell, Mass.; and C. B. Blackburn, the Democratic candidate for Governor of Kentucky, all of whom were called to seats on the platform.

Dr. Yandell, of Louisville, read a paper on "Epidemic

Convulsions." Dr. D. S. Reynolds, of Louisville, read a report on "Ophthalmology." Dr. J. M. Mathews, of Newcastle, read a report on "Diseases of the Rectum." Dr. McCormick, of Bowling Green, followed with a voluntary paper entitled "A Case of Obstruction of the Bowels." The subject of stricture of the rectum was discussed by Doctors Yandell, Cowling and Sayre.

Dr. J. W. Holland, of Louisville, read a paper on "The Urine in Yellow Fever," which brought out quite a discussion from Doctors Marvin and Blackburn. The latter gentleman summarized his views as follows: The cause of yellow fever is destroyed by low temperature. It proceeds from germs, and is capable of reproducing itself. There are some persons who possess an immunity from it, but why we do not understand. The causes of yellow fever and malarial fever are neither identical nor similar. He said, moreover, "there are two reasons why I believe the latter assertion: 1. Africans generally recover from yellow fever without treatment, but quinine must be administered to cure them of malarial fever. 2. Persons go away from home to escape the yellow fever, and return in the fall when it gets cool, and the fever has subsided. They contract the disease, nevertheless, from the confined air of the house, still warm, and die from it; but no one has ever heard of malaria remaining in a house in this way. Most people regard contagion and infection as synonymous terms, but such is not the case. As I view the matter, contagion denotes actual contact with the diseased matter; infection applies to breathing it."

Dr. T. D. Williams, of Beech Fork, read a report on "Puerperal Convulsions."

THURSDAY MORNING.

Along with other resolutions, read and adopted, there was one requiring all physicians within the domain of the State to register their diplomas with a registrar appointed by law, and a committee was named, consisting of Drs. McMurty, Meyer and Dunlap, Jr., of Danville, to push the matter before the Legislature. The object of this measure was to prevent quacks and unqualified physicians from practicing.

Standing and special committees and delegates to medical associations were then read out. Two delegates were sent to the British Medical Association.

Dr. McCormick, of Bowling Green, read a paper on "Cæsarean Section."

Dr. J. W. Singleton, of Paducah, made a verbal report on "Post-partum Hemorrhage," and the following were read: "Uterine Displacements," by Dr. George Cowan, of Danville; "Treatment of Scarlatina," by Dr. W. D. Bullock, of Lexington; "Excision," by Dr. I. S. Warner, of Danville.

The Society then adjourned, to meet at Lexington on the third Wednesday in May, 1880.

In commenting on the twenty-fourth meeting of the Kentucky State Medical Society, it may be said that the attendance was large, and made up principally from men of high professional rank. The reports were in general interesting, though some of them possessed the common fault, too great length. Among the papers especially mentionable, were "Mechanical Aids in the Diagnosis of Chest Diseases," by Dr. Wilson, and the report on "Ophthalmology" by Dr. Reynolds. Dr. Yandell, in his paper, discussed a novel subject in medicine, namely, that peculiar nervous condition arising from religious excitement, denominated "Jerks." If the Doctor had given the pathology of a single case, along with the recital of the thousands who "fell" in those "epidemic convulsions," the paper would have been greatly enhanced in value,

Dr. Holland's paper on "The Urine in Yellow Fever," was an exceedingly interesting one, and forms a valuable addition to the literature of this obscure and much dreaded disease. According to Dr. H., the urine of yellow fever contains unmistakable diagnostic features in the form of tube casts. The paper was beautifully illustrated with copper etchings, showing types of the third and fifth days of the disease, etc.

The dedication of the McDowell monument took place yesterday evening before a large and brilliant audience in the Second Presbyterian Church. Prof. S. D. Gross, of Philadelphia, was the orator of the occasion, and Drs. L. A. Sayre, C. B. Blackburn, Kimbal, Yandell, Governor McCreary, and other distinguished men occupied seats on the platform.

The address, as delivered by Dr. Gross, was, indeed, a fit offering at the tomb of the great father of ovariotomy. Venerable in appearance, though with a manly voice, the

great author and surgeon held the large audience almost spell-bound for an hour and a half, while the virtues of McDowell were recounted and his example praised. Being almost seventy-four years of age, Dr. Gross still possesses the vigor of manhood, and attends to his duties as professor in the Jefferson Medical College with unwearying zeal. Although tortured severely with callers here, he seeks to evade no one, but receives all with cordiality, and dismisses them with a warm shake of the hand, and the familiar "God bless you." In answer to a question as to whether he had accumulated much property, he said, "not very much; doctors do not get very rich by practicing medicine; but still I have enough, and if I come to want, I still have my hands."

To return to the address, the orator concluded by offering some encouraging advice to the younger members of the profession.

Dr. L. A. Sayre, President of the American Medical Association, was next introduced, and spoke touchingly of the "great Nestor of American surgery."

After this, Dr. Yandell read letters from Drs. Parvin, Richards, Gaillard Thomas, Oliver Wendel Holmes, of this country, and Mr. Thornton, Thomas Fry and Spencer Wells, of England.

Dr. Cowling, in a very impressive speech, returned thanks to Prof. Gross, and presented him with the knocker that hung from McDowell's door. Prof. Gross responded in appropriate terms.

After the close of the exercises at the church, the members of the Society and visitors repaired to the different receptions given in honor of the occasion. The names of those to whom all were so much indebted, were Dr. A. R. McKee and wife, Hon. M. J. Durham and wife, Dr. A. W. Johnstone and wife, and the Directors of the State Deaf and Dumb Asylum. The residences and asylum buildings were handsomely decorated with exotics and cut flowers, the grounds were brilliantly illuminated with Chinese lanterns, and refreshments were served by beautiful young ladies.

Among the pleasant features of this beautiful blue grass country, I must not fail to mention the good eating, the fine horses, the Lexington races, the beautiful women, and finally our costly but delightful Southern Railroad.

R. B. D.

EDITORIAL.

IRREGULAR GRADUATING.—We have learned that some individuals of the profession are disposed to cast blame upon Dr. Chas. A. L. Reed for the letters he has addressed to the Trustees of the Cincinnati College of Medicine and Surgery through the MEDICAL NEWS. Instead of considering that it is his wish to benefit the school by improving its faculty—drawing the attention of the Trustees to the gross ignorance that exists in its faculty, and its many irregular acts, which will soon destroy it as a regular school in good standing, and cause good students to avoid it—they seem disposed to think he has entered upon a crusade to overthrow it. There can be no supposition wider from the truth. There have left the school the following gentlemen: Professors M. L. Amick, C. A. L. Reed, R. C. S. Reed, J. A. Thacker. Any one who knows any thing about the college knows that these are the gentlemen by whose efforts mainly it has been built up; by whose labors it has obtained the position and success it has been enjoying for the last several years. Let any one inquire of any intelligent, disinterested Cincinnati physician, to whom the Cincinnati College of Medicine and Surgery is indebted for its being raised up from almost complete extinction to a high degree of prosperity and influence, and he will at once state that the obligation is due to those gentlemen whom we have mentioned. Again, ask him whose ignorance and pretensions it was that all along excited the disgust and ridicule of the profession of the city, and in spite of whom the school flourished—who they were, who were but heavy dead weights that had to be carried—and the reply will be that they were those who have now the management of its affairs.

Any amount of evidence could be furnished of the graduation of grossly ignorant individuals and of irregulars by the college, by the assistance of members of the faculty. Among others who received diplomas, who were not entitled to be admitted as candidates for graduation, was one Henry McGrew, who is now practicing medicine near Cincinnati. This person first graduated at the Eclectic Medical College of Cincinnati. Afterward he matriculated at the Pulte (Homeopathic) College and the *Cincinnati College of Medicine and Surgery*, concurrent sessions, divid-

ing his time in attending lectures between the two. A few days after he graduated at the former, he graduated at the latter. Professor R. C. S. Reed, who has since left the Cincinnati College in disgust, father of Professor C. A. L. Reed, learning the facts, denounced the Dean, Dr. Bramble, for his concealment of the fact of McGrew's ineligibility, according to the requirements of all respectable colleges, to be a candidate for graduation. On the Dean the faculty had imposed the duty of examining the credentials of all matriculants and candidates for graduation, and finding any irregularity in them, to report the same to the faculty. Professor Bramble, denying the truth of the statements made about Mr. McGrew, Professor Reed addressed a note to the authors of the following letter, which he received in reply, inquiring whether he had misrepresented Mr. McGrew. Our readers, on reading the letter can judge whether he did or not, and whether Mr. McGrew should have been admitted for graduation:

READING, OHIO, *June 16, 1877.*

Dr. R. C. S. Reed:

DEAR SIR:—In reply to your request concerning what we know of one Henry McGrew and his medical career, we will state that personally he is a *gentleman* of good standing among those with whom he associates; but medically he has been unfortunate enough to have obtained his preparatory medical education from a *very irregular* practitioner. So far as our knowledge extends, he has never associated or affiliated with regular physicians. Also, just one week after the announcement of obtaining his degree in the *Pulte* Medical College, he sallies forth from the Cincinnati College of Medicine and Surgery, with a full-fledged degree in regular *medicine*. Even after *all this*, he has returned to his former irregular medical associations. In conclusion, we must express our regrets that any regular Medical College should so far forget its obligations to the profession as to confer its diploma on one who seeks fellowship in such an *irregular manner*.

B. S. MECUM, M. D.

OTTO FULS, M. D.

WE append a letter of inquiry to a member of the faculty of the Cincinnati College, by a gentleman who afterward came on and attended the lectures and gradu-

ated. His examination in the Chair of Practice, which was a written one, was a complete failure—scarcely answering a single question correctly. When it came to vote on his competency to graduate, notwithstanding that the occupant of the Chair of Practice protested against his graduation, he nevertheless received the required number of votes, and had conferred upon him the degree of M. D. It was shown that in his written examination, he spelled “bowels,” “boulds;” “heart,” he spelled “hart,” etc., etc. In the face of this exposure, both the chairs of surgery and gynecology asserted that he passed *elegant* examinations in their respective departments. No doubt it was *elegant*. But here is his letter of inquiry before coming up to attend the lectures. It is without date:

— Ills.

Dear Sir

As i am makeing preparations to tend lectures this fall and Winter, i would like to See the terms of your School. i have not yet decided Whare i Shall tend. i Suppose your are a Ware that the law in this state Prevents any one Who has not a diploma from practiceing Medicine Now as i have had 4 or 5 years Study With some practice i wish to gow Whare i can get the Best ashurance of Graduating With one term of lecturse. as i have not got the money nor time to tend two terms. Would like to here What is the best you can doo.

yours Truly

YELLOW FEVER.—It may be interesting to some of our readers to know *why* there was such a fearful scourge of this fever in New Orleans. Recently, through a prominent official there, though having no connection with the board of health, the Editor received a copy of the *Annual Report of the Board of Health of Louisiana for 1878*, in which were found some of the ghastliest statements that any hygienic officer was ever compelled to pen. We will quote a few paragraphs from Dr. Joseph Holt's (Sanitary Inspector of the 4th District of New Orleans) report, that our readers may judge for themselves:

“EVIL NO. 1.—THE PRIVY SYSTEM.—Standing at the very head of evils is our present system of privy vaults. It is not asserting too much to declare that our privies are the most dangerous enemies of our lives and happiness. There is hardly one in New Orleans but whose contents have free access to the soil to saturate the ground with ordure. Thousands of them are originally huge boxes or wooden tanks, but are now only common slinks or pits

in the ground, with hardly a vestige of the woodwork left. While in wet seasons these vaults are flooded, in dry weather they are largely emptied by their fluid contents soaking into the ground, thus saturating the soil upon which we live, with human excrement. In this respect it may be properly stated that the people have a huge privy in common, and that the inhabitants of New Orleans live upon a dung heap.

"EVIL No. 2 IS OUR GUTTER SYSTEM.—In many parts of the city the grading of the street gutters is so imperfect as to render them entirely unfit for drainage. In the topography of this district there are depressions involving the area of a square and in some places of several squares. The gutters of such areas are lower than their outlets, and hence become stagnant pools. With a few exceptions, all the gutters of the district are badly constructed and exceedingly difficult to keep clean.

"EVIL No. 4—INSUFFICIENT WATER SUPPLY.—A year seldom passes without the prevalence of at least two protracted droughts. So desperate are the necessities of the poor at these times that they are compelled to resort to the street gutters to obtain the water which is to supply all their wants, to be used in cooking, drinking, washing, etc. In times past the authorities have allowed the fire plugs to run for awhile morning and evening, partly to wash out the filthy gutters, and partly to afford from the same gutters to our fellow-citizens, men, women, and children, their drinking water.

"EVIL No. 6—LOCUST GROVE CEMETERY, or Potter's Field, which is one square of ground in which are buried the pauper dead of the entire city. Having been used for many years, the same graves were made to receive the bodies of many dead.

"I, myself, making an inspection, witnessed the burial of a corpse. The grave was prepared by uncovering a coffin, opening it, raking the bones together and throwing them out, breaking up and prying out the old coffin, and depositing the new in the mold of the former. When laid in its uncertain resting place the lid of the box, like that of the one preceding, was two inches below the surface of the earth. To hide it, the earth formerly removed was piled upon the coffin in a mound about two feet high. In this covering I counted the skulls of three former occupants, besides observing other bones innumerable. So filled with bones was the earth as to make the use of the spade exceedingly difficult. Another coffin lid, warped by the sun, displayed in hideous reality the body of a poor wretch who had died a few months before; the stench was disgustingly perceptible. The whole surface of the ground was strewn with ribs and small bones, like pebbles upon the hills. Here and there huge thigh bones served as head and foot stones to the unknown dead. The neighbors assured me that hogs repeatedly made their way through the picketed fence, and even declared to me, that they had been known to root up the dead out of their graves, and to revel in their carcasses the live-long night, filling themselves with human flesh to fatten on it. Whether this statement be true or not, it is certain they were frequently in this graveyard, and the coffins, sometimes not below the level of the surface, were often made bare by the rains.

"Adding dangers to the disgusting features of this horrible picture, the boards of coffins broken up, as described, were in constant demand to be used as fire-wood for cooking and for the construction of yard fences, by certain degraded whites and negroes in the district.

"The Potter's Field is now a low marsh, wherein the sexton performs his heavy task faithfully and as best he can; sometimes floating to their graves the dead and weighting them into their homes, the whole graveyard being often a foot under water. The nature of his field renders it impossible for him to dig these graves deeper than has been his habit."

A LONG BEARD.—In the *Medical Advance*, a medical journal published at Detroit, Michigan, is an article containing a cut, and describing a gentleman, known to the editor, having a beard *seven and a half feet* long. He could stand on a chair and his beard would touch the floor. The hair of his head also exhibits a marked disposition to exuberance of growth, as every month he trims off a couple of inches from the ends. Usually, when the beard is of exceptional thickness or length, the head suffers and *vice versa*.

HORLICK'S FOOD.—Our readers should read the advertisement of this preparation. It will be perceived that it is recommended highly by a number of eminent physicians. From the experience we have had with it ourself, we believe it to be all that is represented. Physicians are requested to send for a sample and examine for themselves.

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have now an established position throughout the civilized world as important therapeutical agents. A *perfect combination* of the two has long been a desideratum, since they are both of value in the same disorders, while the cases in which one is demanded and the other contra-indicated are exceedingly rare.

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The value of *cod-liver oil* in phthisis is so familiar to the physician that it is needless to dwell upon it. But the value of *phosphorus* is also universally recognized in this disease, especially when complicated with nervous derangements. The *combination* of the two therefore furnishes a more effective form for the administration of cod-liver oil in the great majority of cases in which that remedy is indicated, and one which will at once commend itself to the profession.

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This Elixir contains Iodine, Pyrophosphate of Iron, the active principle of anti-scorbutic and aromatic plants, and acts as a *tonic, stimulant, emmenagogue*, and a *powerful regenerator of the blood*. It is an invaluable remedy for all constitutional disorders due to the impurity and poverty of the blood. One of the advantages of this new preparation consists in combining the virtues of Iodine and Iron, without the inky taste of Iodide of Iron.

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Attention is invited to the following Analysis of this Extract, as given by S. H. Douglas, Prof. of Chemistry, University of Michigan, Ann Arbor.

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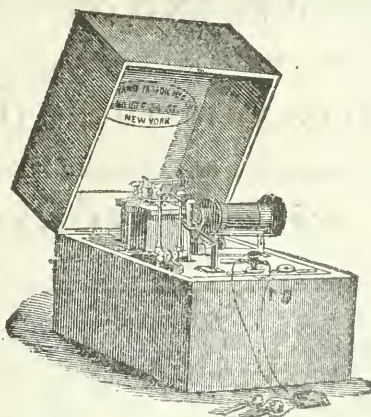
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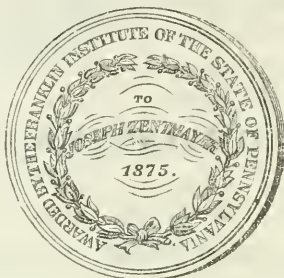
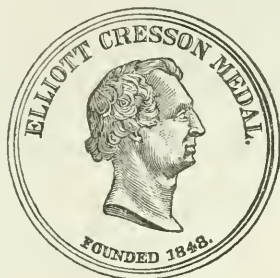
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MALTINE is a highly concentrated extract of malted Barley, Wheat and Oats, containing, undiminished and unimpaired, all the medicinal and nutritious principles found in these cereals. By the most carefully conducted scientific process, we are enabled to offer to the medical profession a perfect article, possessing from three to five times the therapeutic and nutritive merit of any foreign or domestic Extract of Malt.

In support of our claims we invite the attention of the profession to the following points, viz:

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SECOND: Carbon, Hydrogen, Nitrogen, Phosphorus, Sulphur, Iron, Magnesium and Potassium are essential elements in the food of man, and it is only in MALTINE, containing the combined properties of malted Barley, Wheat, and Oats, that all these principles can be found in the proper proportions; Extract of Malt made from Barley alone is wanting in some of the most important of these elements.

THIRD: Gluten is the most nutritious principle found in the cereals, and is the only vegetable substance which will alone support life for any great length of time. It is composed of three distinct nitrogenous principles, together with fatty and inorganic matters, and is analogous to animal fibrin. MALTINE contains twenty times the quantity of Gluten found in any Extract of Malt.

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The Nitrogenous constituents of MALTINE have a composition identical with that of the chief constituents of the Blood, and therefore contain nearly every element requisite for the reproduction of the human body.

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Can undoubtedly be used with greater success than any other remedy now known, in cases of general and nervous Debility, Indigestion, imperfect Nutrition and deficient Lactation; Pulmonary affections, such as Phthisis, Coughs, Colds Hoarseness, Irritation of the Mucous Membranes and difficult expectoration; Cholera Infantum and wasting diseases of children and adults; Convalescence from Fevers, and whenever it is necessary to increase the vital forces and build up the system.

We manufacture the following preparations, the formulas and doses of which are given in our dose books and on the label attached to each bottle:

MALTINE with Hops.

MALTINE, Ferrated:

This combination is specially indicated in Anæmia and Chlorosis, and in all cases of defective nutrition, where Iron is deficient in the system.

MALTINE with Phosphates Iron and Quinia:

A powerful general and nutritive tonic.

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A powerful nutritive, general and nervous tonic.

MALTINE with Hypophosphites:

This preparation is specially indicated in Phthisis, Rickets, and deficient Ossification.

MALTINE with Pepsin and Pancreatine:

One of the most efficient combinations in Dyspepsia, Cholera Infantum and all diseases resulting from imperfect nutrition. It contains three of the all-important digestive agents, Diastase being one of the constituents of the MALTINE. We believe there are few cases of Dyspepsia which will not readily yield to the medicinal properties of the above combination, while the system is invigorated by its nutritive qualities.

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One of the most valuable combinations in cases of general Debility, when there is deficient nutrition and a deficiency of Iron in the system.

MALTINE with Cod Liver Oil:

The most perfect emulsion, and most agreeable and effective mode of administering this nauseous but valuable Oil yet discovered.

MALTINE with Cod Liver Oil and Phosphorus:

In this combination the Phosphorus has no irritant effect upon the stomach.

MALTINE with Cod Liver Oil and Iodide of Iron:

This is prepared with the tasteless Iodide of Iron, which undergoes no chemical change from contact with the Oil, and does not blacken the teeth.

MALTINE with Alternatives:

In this preparation MALTINE is combined with the most valuable Alternatives known, such as Iodides, Bromides, and Chlorides, and will fully meet the requirements of the practitioners in Syphilis, Scrofula, and all depraved conditions of the blood. Each fluid ounce contains: Chloride Calcium, 10 grains; Chloride Magnesium, 10 grains; Bromide Sodium, 5 grains; Iodide Potassium, 1 grain; Iodide Iron, $\frac{1}{4}$ grain. **DOSE:** One teaspoonful to one tablespoonful.

We also manufacture a perfectly prepared EXTRACT OF MALT from Barley only.

MALTINE preparations are sold at the same prices as EXTRACT OF MALT and its combinations, and are put up in amber bottles holding sixteen fluid ounces; each bottle inclosed in a folding paper box.

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PURE COD LIVER OIL

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1-2 inch	65°	20
1-4 inch	115°	20
1-6 inch, D and I	140°	25
1-8 inch, D and I	160°	40
1-15 inch, Im	160°	45
1-18 inch, D and I	160°	55

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1-8 inch	112°	20
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It is acknowledged by Physicians to be the best Food For Infants, Dyspeptics and Invalids.

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Speaking of **HORLICK'S FOOD**: "Being carefully prepared, according to Liebig's Formula, by Chemists fully competent, it possesses certain advantages, such as quick and easy preparation and a pleasant flavor, and is therefore highly esteemed by those who have used it." [Page 58 of the fourth edition of a Treatise on Diseases of Infancy and Childhood. By J. Lewis Smith, M. D., etc.—1879] Also, speaking in another place [page 647] of artificial food for infants, especially those suffering from intestinal catarrh, he says: "I prefer Liebig's, especially **HORLICK'S** preparation of it."

Report from Bellevue Hospital, New York.

In *The Hospital Gazette* for February 6th, 1879 [page 108] Dr. E. Hochheimer makes a report from **BELLEVUE HOSPITAL** of a case of Infantile Paralysis, which was followed by an exhausting diarrhoea.—Speaking of the treatment, he says: "Her condition continued unchanged for the next three weeks; she was put upon a diet consisting principally of milk, but the diarrhoea persisted in spite of opiates and astringents."

"Nov. 17th.—Milk was stopped, and she was put upon a diet of **HORLICK'S FOOD**; after this she began to mend, the diarrhoea became less and finally disappeared; she began to gain flesh, and her general condition was much improved."

We also beg to refer, by permission, to the following eminent medical men, who have used our Food extensively in their practice:—**Prof. DeLaskie Miller**, (Rush Medical College); **Prof. Wm. H. Byford**, (Chicago Medical College); **Prof. J. Adams Allen**, (Rush Medical College); **Drs. J. P. Oliver** and **C. P. Putnam**, (Harvard Medical School); **Prof. Gawne**, (Cleveland Medical College); and several hundred others, whose testimonial letters are on file in our office.

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The discrimination in the Centennial awards, as is well known, existed in THE WRITTEN REPORTS ON AWARDS by the judges, and not in the medals, which were all alike. Dr. Kidder, as far as he knows, is the only one who has published any authorized report upon such apparatus. The Centennial award is as follows:



International Exhibition, PHILADELPHIA, 1876.

The United States Centennial Commission has examined the report of the Judges, and accepted the following reasons, and decreed an award in conformity therewith.

PHILADELPHIA, Feb. 24, 1877.

REPORT ON AWARDS.

"PRODUCT,
GALVANIC APPARATUS.

The undersigned, having examined the product herein described, respectfully recommend the same to the United States Centennial Commission for award for the following reasons: For the Scientific basis and the excellent workmanship of all the exhibited Apparatus; for the introduction of a new method to get very rare interruptions from a self-acting interrupter; for the fitness for the purposes of changing the quality and quantity of the galvanic current, and for the very good construction of Galvano-Cautic Apparatus.

Name and Address of Exhibitor,
JEROME KIDDER, M. D., New York.

Dr. ERNST FLEISCHL, *Signature of the Judge.*

Approval of the Group of Judges.

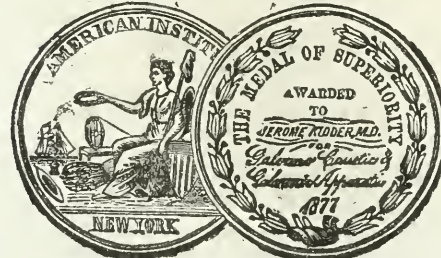
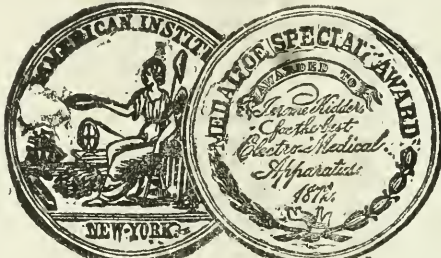
W. ROTH, M. D., Surg.-Gen., Saxony, German Army.
J. H. THOMPSON, A. M., M. D.
C. B. WHITE, M. D.

A True Copy of the Record.

FRANCIS A. WALKER, *Chief of the Bureau of Awards.*

Given by Authority of the United States Centennial Commission.

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
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SESSIONS OF 1879-'80.

THE COLLEGIATE YEAR in this Institution embraces a Preliminary Autumnal Term, the Regular Winter Session, and a Spring Session.

THE PRELIMINARY AUTUMNAL TERM for 1879-'80 will begin on Wednesday, September 17, 1879, and continue until the opening of the Regular Session. During this term instruction, consisting of didactic lectures upon special subjects, and daily clinical lectures, will be given, as heretofore, by the entire Faculty, in the same number and order as during the Regular Session. Students expecting to attend the Regular Session are recommended to attend the Preliminary Term, but such attendance is not required.

THE REGULAR SESSION will begin on Wednesday, October 1, 1879, and end about the 1st of March, 1880. During this Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction.

THE SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins on the 1st of March and continues until the 1st of June. During this Session, daily recitations in all the departments are held by a corps of examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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and Clinical Medicine.

W. H. VAN BUREN, M. D.,
Professor of Principles and Practice of Surgery,
Diseases of Genito-Urinary System and
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Diseases of the Nervous System, and Clin-
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Clinical Professor of Surgery.

BEVERLY ROBINSON, M. D.,
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Lecturer upon Diseases of the Throat.

CHARLES A. DOREMUS, M. D., Ph. D.,
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Matriculation Fee.....	5 00
Dissection Fee (including material for dissection).....	10 00
Graduation Fee.....	30 00

FEES FOR THE SPRING SESSION.

Matriculation (Ticket valid for the following winter).....	\$ 5 00
Recitations, Clinics, and Lectures.....	35 00
Dissection (Ticket valid for the following winter).....	10 00
For the Annual Circular and Catalogue, giving regulations for graduation and other information, address Prof. AUSTIN FLINT, Jr., Secretary, Bellevue Hospital Medical College.	

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| JOHN C. DALTON, M. D., Professor of Physiology and Hygiene. | WM. DETMOLD, M. D., Emeritus Professor of Military and Clinical Surgery. |
| THOMAS M. MARKOE, M. D., Professor of the Principles of Surgery. | WILLIAM H. DRAPER, M. D., Clinical Professor of Diseases of the Skin. |
| T. GAILLARD THOMAS, M. D., Professor of Gynecology. | CORNELIUS R. AGNEW, M. D., Clinical Professor of Diseases of the Eye and Ear. |
| JOHN T. METCALFE, M. D., Emeritus Professor of Clinical Medicine. | ABRAHAM JACOBI, M. D., Clinical Professor of Diseases of Children. |
| HENRY B. SANDS, M. D., Professor of the Practice of Surgery. | FESSENDEN N. OTIS, M. D., Clinical Professor of Venereal Diseases. |
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| THOMAS T. SABINE, M. D., Professor of Anatomy. | GEO. M. LEFFERTS, M. D., Clinical Professor of Laryngoscopy and Diseases of the Throat. |
| CHARLES F. CHANDLER, Ph. D., Professor of Chemistry and Medical Jurisprudence. | CHAS. MCBURNEY, M. D., Demonstrator of Anatomy. |
| EDWARD CURTIS, M. D., Professor of Materia Medica and Therapeutics, | WM. T. BULL, M. D., Assistant Demonstrator of Anatomy. |
- FRANCIS DELAFIELD, M. D.,
Director of the Pathological Laboratory of the Alumni Association.

FACULTY OF THE SPRING SESSION.

- | | |
|---|---|
| JAMES L. LITTLE, M. D., Lecturer on Operative Surgery and Surgical Dressings. | H. KNAPP, M. D., Lecturer on Diseases of the Eye and Ear. |
| GEORGE G. WHEELOCK, M. D., Lecturer on Physical Diagnosis. | T. A. MCBRIDE, M. D., Lecturer on Symptomatology. |
| ROBERT F. WEIR, M. D., Lecturer on Diseases of the Genito-Urinary Organs. | CHAS. MCBURNEY, M. D., Lecturer on the Anatomy of the Nerves. |

The COLLEGIATE YEAR embraces a special *Spring* and a regular *Winter* Session, attendance at the latter only being required for the graduating course. The Spring Session begins in March, and continues till June 1st. The *Regular Winter Session* for 1879-80 begins October 1st, and continues till March.

TUITION is by the following methods:

I. DIDACTIC LECTURES.—During the *Winter Session* from five to six lectures are given daily by the Faculty. Attendance obligatory. During the *Spring Session* two lectures are given daily by the Faculty of the Spring Session. Attendance optional.

II. CLINICAL TEACHING.—Ten Clinics, covering all departments of medicine and surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily Clinics at the larger City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, etc.), as a regular feature of the College Curriculum. Attendance optional.

III. RECITATIONS are held daily throughout both sessions. Attendance optional.

IV. PERSONAL INSTRUCTION.—Cases of *Obstetrics* are furnished without charge. Personal instruction is given in *Practical Anatomy*, *Operative Surgery*, *Minor Surgery*, *Physical Diagnosis*, *Ophthalmology*, *Otology*, *Laryngoscopy*, and in *Normal and Pathological Histology*. Attendance optional, except upon *Practical Anatomy*.

EXPENSES.—The necessary expenses are a yearly Matriculation fee (\$5, good for a collegiate year), the fees for the lectures of the Winter Session (\$20 for the course on each branch, or \$140 for the entire curriculum). The Practical Anatomy fee (\$10, and a small charge for material), and a Graduation fee of \$30. The graduating course requires three years' study, attendance upon two full winter courses of lectures, and upon one course of Practical Anatomy. Remissions and reductions of lecture-fees are made to graduates, and students who have already attended two full courses. All fees are payable in advance. Board can be had for from \$5 to \$9 a week, and the clerk of the College will aid students in obtaining it.

For the Annual Catalogue and Announcement, or for further information, address JOHN G. CURTIS, M. D., Secretary of the Faculty, College of Physicians and Surgeons, Corner Twenty-third Street and Fourth Avenue, New York.



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60	"	" SODA.
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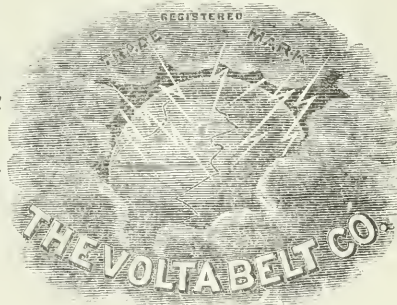
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THE PRELIMINARY SESSION will commence September 17, 1879, and will continue until the opening of the Regular Winter Session. It will be conducted on the plan of that Session.

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THE SPRING SESSION embraces a period of twelve weeks, beginning in the first week of March and ending the last week of May. The daily Clinics, Recitations, and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the members of the Post-Graduate Faculty.

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